



Women's Wellness Center  
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## Peri-menopause and Hormone Health

An important decision every woman must make in midlife is whether or not to use hormone therapy (HT) after menopause. As a physician specializing in women's health, it concerns me that so many women have profound misunderstandings regarding the safety and benefits of HT. If you are suffering the effects of hormone loss, you should know that relief is safe and available. If you have sailed through the menopausal transition in good health and free of any symptoms, then you may not wish to consider HT. Whether you choose to use hormones or not, your decision should be based on facts, not misconceptions or fear.

A significant number of women come to me saying that they are perfectly happy using their hormone therapy, but they are made to feel guilty or wrong for doing so. Perhaps they read something that frightens them, or a friend makes a comment, or even a physician may caution against the use of HT. A woman is left thinking that HT is dangerous. Women today are exposed to conflicting messages, leaving them hopelessly confused. Sadly, even many physicians have misconceptions regarding the safety and benefits of hormone therapy.

This guide was created to clear the confusion so you can make an informed decision when the time comes in your life. I enjoy helping women navigate the menopausal transition, and believe each one of us can do it with grace, comfort, and health.

### **What is menopause?**

Menopause is your last period. After that you are post-menopausal for the rest of your life. Menopause is caused by a decline in ovarian hormone production. Ovarian hormones are involved in many bodily functions, not just reproduction. So, with hormone depletion, many

symptoms can occur that affect both your quality of life and your long-term health.

The most common symptoms women experience are hot flashes, night sweats, depression, difficulty sleeping, decreased libido, vaginal dryness, bladder symptoms, mental cloudiness, and memory loss. Some less common symptoms are heart palpitations, dizziness, itchy crawly skin, or a burning sensation of the mouth or tongue. Duration of symptoms can vary widely. It may be a few months, may be a few years, or may be for a lifetime, not just during the transition time.

The average woman will experience natural menopause between the ages of 48 and 52. Surgical removal of the ovaries results in immediate menopause, usually with abrupt onset of symptoms.

### **What is peri-menopause?**

Peri-menopause includes the several years preceding menopause and the year after menopause. It's common for women to begin having some of the above-mentioned symptoms during this time. During the years leading up to menopause many women may have wide fluctuations in hormone levels that can lead to PMS (premenstrual syndrome) and/or bleeding problems (heavy, irregular periods).

It's important to point out that all of these changes are a natural part of aging, but that doesn't mean that we shouldn't look for some relief from these life-altering symptoms.

### **What do our *natural* hormones do for us?**

Ovarian hormones are also called "sex hormones." These are estrogen, progesterone, and testosterone.

Estrogen is the hormone that makes you look and feel female. This hormone also plays a role in the health of many bodily functions. It may surprise you to learn that you have estrogen receptors in your heart, brain, bones, joints, skin, eyes, teeth, gums, nerves, blood vessels, urinary tract, reproductive organs, and more. So, with estrogen depletion you suffer the loss in countless ways.

Progesterone, during your reproductive years, is responsible for supporting and maintaining pregnancy. And, throughout life it is important to have progesterone to balance the effects of estrogen.

Testosterone is commonly thought of as the “male-only” hormone, but women have it also.

Unlike estrogen and progesterone, testosterone does not *abruptly* fall at menopause, but rather,

it peaks in your mid-twenties and falls gradually throughout life. By the time you reach menopause your body produces about half the amount of testosterone that it did in your twenties.

### **What are the benefits of hormone therapy after menopause?**

The most obvious and immediate benefit of HT is the relief of unpleasant symptoms. However, when ovarian hormones decline it causes more than unpleasant symptoms. Physiologic changes occur that set the stage for chronic diseases of aging, such as heart disease, osteoporosis, and others.

**Table 1** lists some of the benefits of estrogen that are scientifically supported by numerous studies.

**TABLE 1 Benefits of Estrogen Therapy after Menopause**

- Estrogen is the most effective treatment for symptoms of peri-menopause. These symptoms include, but are not limited to: hot flashes, night sweats, sleep disturbance, mood changes (depression, tearfulness, and irritability), anxiety, difficulty concentrating, low libido, vaginal dryness or burning, and bladder symptoms. Less common symptoms are heart palpitations, dizziness, and itchy crawly skin, dry eyes, and burning sensation of the mouth or tongue.
- Cardiovascular disease is the most common cause of death in post-menopausal women. If begun at the onset of menopause, estrogen helps prevent cardiovascular disease through a beneficial effect on cholesterol levels, decreased plaque formation in the coronary arteries, vasodilation, and anti-inflammatory properties.
- Estrogen therapy in menopause decreases risk of diabetes.
- Estrogen replacement is effective for decreasing bone loss and osteoporosis. Without estrogen replacement after menopause there is naturally a steep decline in bone density over several years. Once the bone is lost, hormones can't bring it back. Osteoporosis leads to fractures of hip or spine in postmenopausal women. The mortality rate of hip fracture after age 75 is 50%.
- Estrogen therapy has been shown to decrease incidence of Alzheimer's Dementia (if started early in menopause and continued long term).
- Estrogen therapy lowers risk of colon cancer.
- Estrogen replacement decreases risk of macular degeneration, the most common cause of vision loss and blindness in adults over 65 years of age. Estrogen also lowers incidence of cataracts.
- Estrogen therapy helps prevent degenerative arthritis.
- Estrogen therapy helps prevent tooth loss.
- Estrogen replacement can preserve or restore healthy sexual functioning, including vaginal health, maintenance of healthy sexual desire, and orgasm.
- Estrogen preserves skin tone, reducing formation of wrinkles through estrogen's effect on collagen in skin.

### **What are the risks of hormone therapy?**

Estrogen, when taken as a pill, slightly increases the risk of blood clots, which can lead to stroke or pulmonary embolism. This is because of its effects on the liver. Estrogen, when taken orally,

undergoes extensive metabolism in the liver, causing increased production of blood clotting and inflammatory factors. Fortunately, studies have shown that when low dose estrogen is absorbed through the skin (by using a patch, for example) the risk of blood clot is not increased.

This is because with skin absorption the hormone goes directly into the bloodstream, rather than first passing through the liver, as when estrogen is absorbed through the gut from pills.

Oral estrogen slightly increases the risk of gall bladder disease. This risk can be avoided with the use of transdermal estrogen (avoidance of oral estrogen).

### **Does HT increase the risk of cancer?**

The only cancer conclusively shown to be increased by estrogen therapy is uterine cancer, and the proper use of progesterone eliminates the increase in risk. Use of unopposed estrogen can cause over-stimulation of the cells of the uterine lining, but when properly balanced with progesterone there is no over-stimulation and no increase in uterine cancer risk.

The cancer risk of HT that draws the most attention is the possible link to breast cancer. Many women who are hesitant to use hormone therapy cite this as their main concern. There have been hundreds of studies looking at estrogen therapy and breast cancer, and though some studies show a small increase in risk, just as many show no increase, and some show a decrease in breast cancer for women on estrogen therapy.

The fact is, scientists have been studying estrogen for decades, and there still is no conclusive evidence that estrogen replacement *causes* breast cancer. Evidence does suggest that an existing breast cancer will grow in response to estrogen, but this is not the same as saying that estrogen causes breast cancer.

A large study released in 2002 called the Women's Health Initiative (WHI) examined breast cancer rates in women using Prempro compared to placebo (inactive pill). Prempro is a combination pill containing estrogen and progestin, the latter being a synthetic chemical substitute for progesterone. Results showed a 26% increase in risk of breast cancer for those on Prempro compared to placebo. That sounds like a lot of extra cases of cancer. But, you must understand statistics to realize what this actually means. The 26% increase in breast cancer

represents an increase of only 8 women in 10,000, or less than one woman per 1000 women per year.

Another part of the WHI study, which examined breast cancer risk with estrogen-only (rather than the combination of estrogen and progestin) showed no increase in risk, but in fact, a small *decrease* in breast cancer risk compared to women using no hormone therapy.

To put risk into perspective consider this: The increase in the risk of breast cancer associated with HT use is comparable to the increase in the risk of breast cancer associated with lifestyle choices such as daily alcohol use (2-5 drinks per day), obesity, and lack of regular exercise. These are all considered *minor* risk factors for breast cancer.

Another way of putting risk into perspective is to consider disease risk in terms of what's more likely to kill you. While breast cancer is the number one fear of most women, it's far less likely to kill you than heart disease, osteoporotic hip fracture, or colon cancer, and we know the risk of each of these conditions is lowered with the use of HT. Studies also show that HT use lowers overall mortality if begun early after menopause.

### **If there are studies that show no increase in breast cancer risk with HT, why don't we hear about them?**

It is well known that media sources do not report positive news as often as negative news. Bad news attracts advertising dollars because it attracts more readers. Stories that report increased rates of cancer are going to attract more readers or viewers.

Even if we believe the studies reporting a small increase in breast cancer risk, we still have to look at the benefit side of HT. We have plenty of data to suggest that benefits of HT outweigh risks for many women. The heart-protective benefit alone may outweigh the breast cancer risk. Consider this fact: Deaths from cardiac disease are far greater in number than those from breast cancer. Breast cancer accounts for about 4% of deaths in women, while 42% are due to heart disease.

Let's face it; as cancers go, breast cancer is common. Statistics say that one in eight women will develop the disease in her lifetime. Some of these will be using HT and some of them will not. Are we to believe that it's the HT that caused the cancer in each of those hormone users who developed the cancer? Remember, there is risk in everything we do: using HT, not using HT, taking drugs to treat diseases that could have been prevented with HT, not taking drugs for those diseases, driving a car, having children... It's a matter of deciding what is important to you based on your personal risk factors and quality of life. Don't let anyone tell you that HT is not an option. It is an option. You get to make the choice.

### **Does HT increase the risk of heart disease?**

In 2002, it was big (bad) news when findings from the WHI study initially reported increases in cardiac risk with HT. However, it was later reported that this was due to the large number of older women in the study. These older women (aged 60-79) started HT 10-20 years post-menopause, after their arteries may have already accumulated plaques (that is, they had pre-existing cardiac disease).

When the data was carefully analyzed, the group that started HT *early* after menopause (age 50-59) actually showed a cardiac benefit from HT. This more detailed and accurate interpretation was reported in medical journals several years after the initial study results had been released, but it didn't make the headlines or the morning news programs. Unfortunately, many websites and publications still exist, reporting that HT increases cardiac risk, all based on misleading initial reports. It's sad and frustrating that this out-of-date information is being viewed daily by women looking for answers.

It is quite clear now, and agreed upon by leading experts, that HT decreases cardiac risk if the hormones are begun early after menopause. However, if started more than ten years after menopause, HT is not thought to provide cardiac benefit, and may increase risk. Timing of initiation of HT is critical for cardiac as well as

bone and brain protection, and may be for other benefits as well.

### **What if I am several years postmenopausal and have not used HT? Is it safe to start now?**

If you have poor quality of life due to hormone depletion and you are suffering symptoms listed on page one, you certainly may begin using HT, even remote from menopause. I see lots of mid-fifties to sixty-something year old patients who say "I thought this menopause thing would pass in a few months and I'd ride it out, but here I am 5-10 years later, still having horrible hot flashes, can't sleep, and have zero romantic interest in my spouse." Restoring hormone balance can relieve these symptoms and make you feel like *you* again.

You do need to be aware, however, that data suggests you probably won't receive as many health benefits from HT as you might if you had begun using it within the first five to ten years after menopause. Prevention of coronary artery disease, in particular, is not an advantage you will receive with delayed use of HT. This is because many women will develop some plaques in the coronary arteries during the first ten years of estrogen depletion. That's one reason men begin developing cardiac disease at an earlier age than women; they don't have the protection of estrogen in their system. Once a woman loses her estrogen, her coronary arteries are more likely to begin accumulating plaques.

Estrogen may retard or prevent these plaques from forming, but estrogen does not clean them up if they have already formed. In fact, some studies suggest that initiation of estrogen replacement at that stage could slightly increase risk of stroke or heart attack. It stands to reason that those with good cardiac health would not have increased cardiac or stroke risk with late initiation of HT, but those with high cardiac risk may have slightly more risk with initiation of HT more than 10 years after menopause. The question has not been definitively answered in the existing scientific literature.

## WHI Study: A Pivotal Point in the History of Hormone Therapy

Why do we see and hear so many conflicting messages? Why is HT such a controversial subject? If HT has so many benefits, what explains the prevailing view that it is dangerous? This can all be explained by a study called the Women's Health Initiative (WHI). This large study, funded by the National Institutes of Health, literally scared women out of their hormones. When the initial results of this study were reported in 2002, it caused hormone therapy recommendations to drastically change overnight. Suddenly, doctors began advising women to discontinue HT and women became afraid of their hormones due to negative reports coming out of this study. The sad thing is that these actions were taken in response to negative reports that were later found to be erroneous misinterpretations of the data.

Initial reports of findings, released in 2002, stated that combined HT (estrogen + progestin) increased breast cancer. However, later findings revealed that estrogen-only therapy *decreased* breast cancer risk. This was *good* news, but these findings were reported in 2004, two years after all the negative reports had been released. By this time, the general public had been convinced that hormones are dangerous, and this new reassuring report did not get much attention.

The risk of heart disease was misrepresented in a different way. In 2002 WHI findings revealed an increase in heart attack and stroke for those on HT. However, later interpretations of the same study data showed that the younger patients in the study, those aged 50-59, actually had *less* heart attack and stroke with HT compared to placebo. This was *good* news, because this is the age group typically experiencing the worst symptoms of peri-menopause. However, this data was not reported until several years after the initial negative findings had been released, and it certainly did not get the media attention that the negative scary interpretation of the findings had received.

The irresponsible reporting of the WHI study findings, particularly with respect to the timing of reporting, the emphasis of negative scary findings, neglect of positive reassuring findings, and failure to put risk into perspective, is the reason that we have so much confusion today regarding safety and benefits of HT. Because of the fear generated by the WHI, a whole generation of women has been robbed of the benefits of hormone therapy. It is amazing how pervasive this fear of hormones has become, and how persistent misconceptions can be. If you'd like to read a Wall Street Journal article discussing the controversy surrounding initial reporting of the WHI study, go to [womenswellnessnow.com](http://womenswellnessnow.com), click on "Links" then click the link at the bottom of the list.

### Which hormones do I need?

#### Estrogen

When we discuss relief of menopausal symptoms and health benefits of hormone replacement, we are usually talking about estrogen. Loss of estrogen leads to unpleasant symptoms, and is partially responsible for the decline in health that makes menopause a time of accelerated aging.

The human body makes 3 different types of estrogen. These are estradiol, estrone, and estrinol. Estradiol is the most potent estrogen, and by far the most active estrogen in the body throughout a woman's reproductive lifetime. Estrone, much less potent, is the dominant estrogen during menopause because it can be manufactured in fat cells even if ovaries are absent or non-functioning. Estrinol is made by the placenta during pregnancy, and is present in negligible amounts during the non-pregnant times in a woman's life.

Some have made claims that all three estrogens should be replaced in menopause, because it's purported to be more "natural." And, some have

claimed that estrinol is safer than other forms of estrogen because, being weaker, it may occupy estrogen binding sites, preventing the more potent estrogens from having an effect, which may lead to less breast cell proliferation. While this is an interesting theory, at this time no clinical studies exist to support these claims. Since estradiol is the dominant estrogen of the healthy reproductive years, it makes sense to use estradiol for estrogen replacement.

#### Progesterone

Progesterone is prescribed to balance the effects of estrogen, particularly on uterine tissue. Using estrogen without progesterone causes thickening of the uterine lining, which could lead to uterine cancer. If a woman has had her uterus removed, then progesterone is not required, but is sometimes useful in particular circumstances. Some data is beginning to emerge suggesting that progesterone may offer protection against breast cancer for those using estrogen therapy. More study is needed in this area.

#### Testosterone

Some women may benefit from testosterone therapy. Studies have shown that testosterone

replacement after menopause can restore libido, orgasm, and sense of well-being. There is also some evidence that testosterone benefits bone health.

### **What formulation of hormone is best?**

Hormone therapy can be obtained in many different formulations: pills, patches, gels, creams, vaginal formulations, and others. Often, the route chosen depends upon one's individual preferences, convenience, and cost. However, there are some clinical advantages of certain forms over others.

Estradiol. A transdermal formulation (absorbed through the skin) is preferable over oral (pills) for a couple of reasons. When an estrogen pill is swallowed, it lands in the stomach, is absorbed through the stomach wall, *then* goes to the liver for processing and metabolism, *then* it goes into the bloodstream and general circulation. With transdermal delivery, the hormone is absorbed through the skin and goes *directly* to the bloodstream and general circulation. With pills, that "first pass" through the liver stimulates the liver to produce factors that increase the risk of blood clots, and increase the risk of gall bladder disease, and increase triglycerides (fat in the blood). With transdermal delivery the liver first-pass is avoided so you don't have these problems. Transdermal delivery also results in steadier hormone levels throughout the day compared to pills.

Vaginal estrogen can be very beneficial for vaginal dryness, and painful intercourse. It is also beneficial for bladder health, relieving urinary urgency or frequency. Vaginal estrogen can be supplied as a cream (using an intra-vaginal applicator), as a tablet inserted into the vagina via pre-loaded applicator (Vagifem), or as a plastic ring that is placed in the vagina to stay for 3 months at a time, slowly releasing low dose estradiol continuously (Estring). These very low dose vaginal treatments do not result in significant systemic elevation in estrogen levels.

Progesterone is usually given as an oral formulation, since dosing and absorption is most reliable in this form. When progesterone is given with estrogen as a part of combination hormone replacement, the dose must be adequate to

ensure uterine protection. Progesterone creams have been studied, but have not been found to be consistently absorbed in amounts that reliably protect the uterus.

Patients sometimes ask why we don't worry about the first-pass of progesterone through the liver, since we have said that's a drawback of oral estrogen. Actually, oral progesterone does undergo first-pass liver metabolism, but instead of producing harmful factors, the liver produces factors that act on the central nervous system (brain) to induce a state of calm, or if the dose is higher, sleepiness. These are often welcome "side effects" of using oral progesterone. Most women who take progesterone at night do not find that it makes them sleepy the next day.

For those few who experience excessive sleepiness or other side effects with oral progesterone, a vaginal gel is suggested. Pre-filled single-use applicators make it convenient to use.

Testosterone therapy for women is best given in a transdermal formulation (cream or gel). A patch has been studied, and may be available in the future.

Each of the above hormones can also be supplied as troches (lozenges to be dissolved in the mouth) or drops (applied under the tongue). The idea with these formulations is that the hormone is absorbed directly into the bloodstream from the oral tissues. However, some of the hormone, (who knows how much?), may be swallowed and absorbed via the gut, leading to the negative associations of oral products. And, since the amount of hormone swallowed cannot be quantified, the dose of hormone absorbed via the gut versus the bloodstream can be quite variable. These two routes also have the disadvantage of short half-life (the hormone wears off before the day is done), so multiple doses per day are required.

### **What are bio-identical hormones?**

The term bio-identical refers to hormone formulations that exactly match the hormones of the human body. These are made in a laboratory, using soy or yams as the source. Estrogen,

progesterone, and testosterone can be produced as bio-identical formulations.

Estradiol is a bio-identical estrogen that is commercially available under many brand names. Some examples are Vivelle, Climara, Elestrin, Estrogel, Divigel, Evamist, Estrace, Vagifem, Estring, FemRing, Angelique, Combipatch, and Activella. The last 3 of these also contain a synthetic progestin, a molecule that is similar in structure to progestins found in oral contraceptives, but is not bio-identical.

Bio-identical progesterone is commercially available under the brand names Prometrium (oral capsule) and Prochieve (vaginal gel). Low dose progesterone creams are available over-the-counter under many brand names, but these products are not subject to the same rigorous FDA regulations that apply to prescription drugs. As a result, significant variability in dose and content may occur.

*Compounded* bio-identical hormone therapy is a specialized type that is custom-made for the individual. This can be advantageous because an infinite variety of doses and combinations can be prescribed. Only specialized pharmacies provide this service because they must be set up to mix the compounds on site for each individual prescription.

Bio-identical testosterone is currently not commercially available in a dose appropriate for a woman, so it must be specially formulated by a compounding pharmacy.

Examples of hormone therapies that are *not* bio-identical are conjugated equine estrogens (CEE), and progestins. CEE's are derived from the urine of horses. This pill actually contains a mixture of several horse estrogens. They are genuine hormones, but not identical to those of humans. Premarin is the brand name of CEE that many women are familiar with, since it has been around for 70 years and has historically been the most widely prescribed estrogen in the US (and the most studied). Progestin is a synthetic chemical substitute for progesterone. It is not a hormone, but a potent substitute that has historically been prescribed to oppose estrogen's effects on the uterine lining. Provera is the brand name of the most commonly prescribed

progestin in combination hormone therapy.

### **Are bio-identical hormones safer than synthetic hormones?**

Clinical trials have shown that transdermal estrogen (which is bio-identical) is safer than oral estrogen, because the transdermal route avoids first-pass metabolism by the liver, thereby reducing the risk of blood clots and gall bladder disease, compared to oral estrogen. In this case it's not the "bio-identical" that makes it safer, it's the transdermal route. It just so happens that the only type of estrogen available as a transdermal formulation is bio-identical estrogen, and it is safer than a pill form of estrogen due to the way it is metabolized.

As for breast cancer risk, studies do not show an advantage of one type of estrogen over another. Some studies of CEE (Premarin) show no breast cancer increase and some show a small increase. The same is true for human identical (bio-identical) estradiol. Many studies indicate that the highest breast cancer risk is seen when any estrogen is *combined with a progestin*. Studies suggest that synthetic progestins may be the component of combined long-term HT that is most linked to breast cancer, while there is no study showing that bio-identical progesterone increases breast cancer risk. Remember, progestin is not hormone at all, but a completely synthetic chemical substitute for the progesterone that your body produces.

Data also suggests that bio-identical progesterone is safer than synthetic progestin because synthetic progestin opposes estrogen's benefits on heart health, while bio-identical progesterone does not.

### **What are the side effects of HT?**

The vast majority of women using HT have relief of symptoms with no side effects. Of those who report side effects, the most common are short-term breast tenderness and spotting (light bleeding). Both of these are usually limited to the first few weeks after initiation of treatment, and they are due to the breast and uterine tissue being "re-exposed" to estrogen after a period of estrogen depletion. It is not unexpected to see such a response, since these tissues do contain

estrogen receptors. Therefore, one should not be alarmed. If bleeding is persistent, it usually works better to use a cyclic hormone regimen so there is a regularly scheduled “period” of bleeding, usually a minimal amount. Most women do well with continuous HT, and no cyclic or other bleeding is experienced.

Some women find that oral progesterone can cause sleepiness or dizziness. For this reason, I usually recommend taking progesterone at night. In fact, this is frequently very helpful for those who suffer sleep disturbance.

### **Will HT bring my periods back?**

HT can be used in a continuous or cyclic fashion. If you do not wish to have monthly bleeding (this is most of you!) then you will use estrogen and progesterone daily and continuously, and you will not have “periods.” Some women have nuisance breakthrough bleeding (irregular spotting or bleeding) with the continuous regimen. This may be due to differences in uterine anatomy or fluctuations in the body’s natural estrogen production. These few will be happier using cyclic HT so that bleeding is regular and predictable. In these cases, usually bleeding is light and easy to deal with, rather than heavy periods that one may have experienced in younger years.

### **Does HT cause weight gain?**

Many women have weight gain at about the same time they begin HT, so they believe that HT causes weight gain. In reality, statistics show that menopausal women using HT have *less* weight gain than menopausal women *not* using HT. A very few women will have fluid weight gain of a few pounds with HT, but this is not common. Weight gain occurs because menopause occurs. The menopausal transition is a time of significant change in a woman’s hormones and metabolism. This includes not only ovarian hormones, but insulin, cortisol, and many others that control how you metabolize energy and accumulate fat. It is well known that the rate of metabolism slows down during perimenopause, so one’s weight will increase if the same caloric intake and same level of exercise is maintained. Because this is also the time women

develop symptoms and begin HT, they might blame HT for the weight gain. The truth is hard to accept, because no one wants to hear that they will have to eat less and exercise more to avoid weight gain in midlife. It doesn’t seem fair! One way to increase your metabolic rate is to add muscle-building to your exercise routine. Muscle tissue burns more calories than other tissues, even when you are at rest.

### **Is thyroid hormone affected at menopause?**

While thyroid hormone is not one of the hormones that sharply declines at menopause, it is natural for thyroid hormone production to decrease gradually with age. Declining thyroid hormone production is probably one of the reasons humans gain weight with aging. As discussed above, it’s perfectly natural, but certainly not a welcome part of aging. Some of the symptoms of peri-menopause can overlap with symptoms of low thyroid hormone. Fatigue, depression, sleep disturbance, low libido, brain fog, decreased mental sharpness, and difficulty losing weight are all common with deficient thyroid hormone, or hypothyroidism. I always consider thyroid health during any evaluation of hormonal health. Replacement of low, or even borderline-low thyroid hormone can make a dramatic difference in quality of life. To evaluate thyroid hormone levels optimally, it is my preference to obtain a complete thyroid panel, and I suggest treatment if thyroid hormone is borderline or low in a symptomatic patient.

### **How long should I use hormone therapy?**

When it comes to symptom control, the question is how long do you wish to feel your best? Some women will have a natural resolution of hot flashes after a few years, some won’t. Even so, there are numerous bodily changes to consider: bone health, cardiovascular health, vaginal health, bladder health, skin health, sexual health, emotional health, and mental acuity, to name a few. Ongoing benefits will be lost when hormones are discontinued.

Each woman must decide, with the help of a well-informed health care provider, what is right for her, based on her individual and family

history, her preferences, and all of the available data. The truth is, the available data is imperfect, so we are taking a small amount of risk when we decide to use hormone therapy long-term.

Upon hearing the above statement, one patient of mine concluded, “We are all a bunch of guinea pigs!” My response is this: There is no drug that has been studied as much, or for as long as hormone therapy. If you believe we are like guinea pigs when we use HT long-term, then you must accept that we are like guinea pigs when we engage in long-term use of antidepressants, cholesterol-lowering meds, bone-building meds, heartburn meds, and countless other medications that are relatively new and widely used. Thus, the guinea pig analogy could be applied a thousand times over in every facet of medicine. We understandably become emotional when the words “breast cancer” enter the discussion. But, we must keep things in perspective. An important difference to consider is that hormones are naturally made by your body, while drugs are completely alien to your body. Estradiol and progesterone benefit your body in countless ways during the premenopausal years. It is counter-intuitive to think that replacing modest amounts of these same hormones in menopause would cause harm. In fact, studies do suggest that benefits outweigh risk for most women.

### **Is it necessary to check hormone levels?**

Monitoring hormone levels can be of use in specific situations, though it is not necessary in all cases. Some women ask about saliva testing of hormones, which has been advocated by certain books (I’ve found these are usually co-authored by representatives of saliva-testing laboratories). Despite very convincing arguments in these books, there is no scientific validity in the practice of monitoring saliva levels of ovarian hormones. Monitoring hormone levels in the blood is scientifically-based, so if hormone monitoring is indicated, that is the most reliable method.

### **Special Cases for Consideration of HT**

Family history of breast cancer. A woman who has seen loved ones suffering with breast cancer

may be particularly wary of using any form of HT, and even dismiss it as an absolute impossibility. That view is understandable, given the media attention to HT, heavily weighted on the negative. While I certainly understand and respect that viewpoint, I do feel it is important for women to understand that a family history of breast cancer is not an absolute contraindication to using HT. Having one first degree relative with breast cancer increases individual risk by a few percentage points, going from 11% baseline risk to perhaps 12-16% lifetime risk, depending on other factors. If more than one family member has had breast cancer it imposes additional risk to the individual. This and other factors are all taken into account when making the decision to use HT or not. If a woman is suffering menopausal symptoms on a daily (and nightly) basis, quality of life is worth saving. Using HT for a period of 2-5 years would be reasonable, to get through the transitional phase, which tends to be the worst of symptoms. Even long-term use would be acceptable for many.

The exception would be an individual carrying a gene mutation that places her at extreme elevated risk. This is called the BRCA mutation, and is carried by only a small percentage of the population. One may wish to pursue testing for this mutation if she has multiple first-degree relatives with breast and/or ovarian cancer. At Women’s Wellness Center we offer genetic counseling to determine if you are a candidate for BRCA testing, and if desired, we can arrange testing through our center.

Personal history of breast cancer. There is still controversy in this area because studies are mixed concerning use of HT after breast cancer. Some studies report no increase in recurrence risk, some show a small increase in recurrence risk. HT has not been proven to be safe, nor has it been proven to be unsafe for use by women who have had breast cancer.

History of blood clot. Women with a prior history of blood clot in the lung (pulmonary embolus) or any type of deep vein thrombosis (DVT) have an increased risk for blood clots with use of oral estrogen. It may be safe to use low doses of transdermal estrogen, but we have

no large studies looking specifically at these high-risk individuals using HT.

### **Is there any other treatment for menopause symptoms besides prescription HT?**

Some women are not able to use hormone therapy for medical or personal reasons. While no single remedy can relieve all the symptoms of menopause as effectively as HT, various remedies and medical therapies can be effective for individual symptoms. Let's take the most common symptoms one by one.

Hot flashes. Using a small fan at your desk, or a large one in your bedroom at night can help decrease the discomfort of hot flashes. You may notice certain triggers, such as heat, or emotional anxiety. Breathing exercises for stress-reduction may be of help when you feel a hot flash coming on. Dietary soy can alleviate symptoms for some individuals.

Some over-the-counter remedies have been effective for short-term relief of hot flashes and night sweats. Some examples are low dose progesterone cream and herbal remedies such as Black Cohosh. The problem with herbal products is that they are not regulated the way prescription drugs are, so ingredients can be inconsistent. While short-term studies do not show any harm, we do not have enough long term data to be certain of safety.

Sleep disturbance. If you have chronic sleep disturbance, proper sleep "hygiene" is important. Try to maintain the same sleep schedule every day of the week and weekend, do not consume caffeine after noon, and do not let yourself get emotionally worked-up in the late evenings by watching or reading the news, or discussing stressful topics just before bedtime. Start winding down in the evenings to help your body relax and make the transition to sleep. Low dose progesterone cream (available over-the-counter) may be effective short term.

Mood changes. For depression and/or anxiety symptoms, anti-depressant medication can be very effective. Serotonin enhancing drugs, such as Prozac or Zoloft, can be particularly helpful.

Decreased libido. Sex therapy or counseling with a psychologist can be excellent for working

out emotional or relationship issues that contribute to sexual dysfunction. However, if there is an underlying hormone imbalance, counseling can only help you to a certain point. The genital tissues have a large number of hormone receptors for good reason.

Vaginal symptoms. Vaginal dryness and pain during intercourse can sometimes be relieved with a personal lubricant, such as K-Y products, Astroglide, or Replens. However, loss of estrogen causes the vagina to lose adequate blood supply, moisture, tissue thickness, elasticity, and pliability. These can be restored with estrogen.

### **Are there any other alternatives to address health concerns related to aging?**

Again, no single treatment (except HT) has been identified that can positively affect all of the conditions caused by hormone deprivation. However, various treatments and positive lifestyle habits are known to be of benefit for individual factors. These positive lifestyle choices are recommended whether one is using HT or not. Let's look at specific health concerns one by one.

Prevention of cardiac disease. Sadly, this is usually a lifestyle-driven disease, though genetic make-up plays a role also. Weight control, exercise, and not smoking will significantly lower risk. Fish oil supplements can lower cardiac risk through their ability to decrease inflammation in the body. Vitamin D supplementation has been shown to decrease risk as well. Lipid lowering medications can lower cardiac risk in certain high-risk individuals. Of course, any drug brings its own list of risks and side effects.

Prevention of osteoporosis. We know that getting plenty of calcium in the diet (and with supplements), supplemental vitamin D, and regular weight-bearing exercise will help to maintain strong bones. And we know that during the first few years after menopause we lose a significant percentage of bone density if estrogen is not replaced. Whether one develops osteoporosis after menopause depends on genetics, lifestyle and diet, and how much bone

“reserve” is present pre-menopause. So, lifestyle choices are important way before menopause.

Several non-hormonal drugs are available for treatment or prevention of bone loss. Like all drugs, these are associated with risks and side effects. These drugs cause new bone tissue to have a different architecture than would naturally occur. It's much better if we can maintain our bone density and prevent bone loss in the first place. And we can, if we think about it early enough in life.

Prevention of Alzheimer's Dementia. Studies have shown that keeping mentally active and intellectually challenged during your entire lifetime can help prevent Alzheimer's Dementia. Regular physical exercise has also been shown to decrease the risk. Genetics are also a factor.

Prevention of Breast Cancer. While age and genetic make-up are the strongest factors influencing breast cancer risk, lifestyle is a contributor that we can control. Studies show that maintaining a healthy weight, regular exercise, limiting alcohol intake, not smoking, and taking supplemental vitamin D can all decrease risk of breast cancer. After age 40, annual screening with mammography is

recommended for all women. Early detection greatly improves survival.

### **What else should I be doing to stay healthy after menopause?**

Correction of hormone deficiencies and making positive lifestyle choices are keys to healthy aging. Maintaining a healthy weight, good nutrition, exercise, healthy strategies for handling stress... these are all of vital importance for preventing disease. It's up to each individual to be proactive about her health and wellness. This also means visiting a healthcare provider at least once a year. At Women's Wellness Center, these visits are designed to not only examine, but to educate, enlighten, and motivate women, to help them make healthy choices.

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