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Solutions for All Lifestages & Issues

Perimenopause. Menopause. Premenstrual syndrome.
Estrogen dominance. Osteoporosis.

Pick up a magazine, log on to a health website, or watch afternoon television and there's an excellent chance you are going to encounter a discussion about one or more of these women's health issues. While much advice is offered, it is often contradictory and contentiously debated.

So how do women sort through this maze of information? What is perimenopause and how does it differ from menopause? What treatments are the most effective? Should hormone imbalance be treated with more hormones? Is there an effective way to prevent and treat osteoporosis without prescription drugs? Are the proponents of hormone replacement therapy (HRT) correct when they claim it can be safely used for three to five years? Why does this all have to be so complicated?

In this issue of Ask the Doctor, we're going to clear this up confusion once and for all. We are going to talk about what really is happening in a woman's body as she travels through these lifestages and why these changes are occurring. And we're going to discuss simple, safe, and effective solutions to ease their symptoms and possibly prevent their occurrence.

The Reality of a Woman's Body

Regardless of our age, life's plans, personal desires, or professional goals, the reality of being female is that our organs and hormones, whether or not we ever become pregnant or give birth, will cause us to experience physical changes at fairly specific intervals and stages.¹

Within these stages normal fluctuations in our reproductive hormones will occur. Once women pass puberty, hormone levels are high in the first stage, fluctuate in the second, and slowly decline, then cease in the third.

And because our reproductive hormones perform *other* important functions in our bodies that are completely unrelated to pregnancy and babies, these changing levels have the potential to greatly affect women's health as a whole. The result is a myriad of normal and natural, but often uncomfortable and distressing, symptoms.¹

Because these symptoms do cause discomfort, healthcare practitioners have come to view these lifestage conditions as "problems" to fix and correct. Following the "medical model" where uncomfortable and distressing symptoms are equated with disease, healthcare practitioners are prescribing synthetic hormones to treat most, if not all, of women's reproductive health symptoms. And this is continuing despite recent research that has *proven* HRT's risks far outweigh any benefit.^{2,3}

The simple fact is you don't need more hormones to treat hormonal imbalance or to reduce the symptoms of perimenopause, premenstrual syndrome, or menopause. You don't necessarily need prescription medications to treat osteoporosis. What you do need are specific nutrients to restore hormonal balance and reduce symptoms. You need vitamins and minerals to replenish what you might be missing and in turn, causing your discomfort. You need nutrition for your bones to keep them strong and healthy all your life long.⁴ And you need easy to understand information so that you can make health decisions that are right for you.

We're going to begin by discussing estrogen and progesterone, the primary reproductive hormones. We're going to learn why we need them, how they function in our bodies, and why they seem to cause troubles, too.

Q. What are estrogen and progesterone and what do they do?

A. Let's start with estrogen. Women actually have three different hormones that perform the functions we attribute to estrogen - estrone, estradiol, and estriol. While more than 90 percent of estrogen is made in the ovaries, smaller quantities are produced by the adrenal glands, liver, kidneys, and women's body fat.⁵

Estrogen is necessary for the normal development and growth of the breasts and childbearing organs, including the ovaries and the uterus. It helps control a woman's menstrual cycle and is essential for reproduction. Estrogen also helps maintain a healthy heart and bones.⁵

Progesterone, also produced in the ovaries, is the reproductive hormone most closely associated with pregnancy. Under the guidance of progesterone, an egg leaves one of the ovaries and travels to the uterus through the fallopian tubes. Progesterone also builds up a thick cushiony lining on the wall of the uterus. If the released egg is fertilized, it attaches to this cushiony wall, using the extra blood and tissue to nourish itself as it slowly develops into a baby. If pregnancy does not result, the uterus no longer needs the extra blood and tissue and sheds them through the vagina. Progesterone orchestrates this cycle every month until the ovaries stop releasing eggs.^{1,5}

To perform these duties, estrogen and progesterone travel through the bloodstream coming into contact with all of the body's cells. However, only specific target cells will respond to their presence. Specialized protein molecules on target cells called receptors act like on and off switches for particular actions within the cell. The receptors have specific shapes and only similarly shaped progesterone and estrogen can bind to the receptor. This binding turns on the switch, sending a signal inside the cell that causes a specific action to occur. Once the action is completed, the estrogen or progesterone is broken down (or metabolized), and excreted out of the body.^{1,5}

Q. What if there is an imbalance of hormones?

A. A woman's health is profoundly affected by her body's ability to maintain hormonal balance. If her hormonal balance is disrupted, numerous health problems follow.^{4,6}

There are several ways imbalances can occur. One way is through exposure to xenoestrogens. Certain chemicals that are used in pesticides, plastics, and fuels (things we use every day) look and act enough like natural estrogen for the body to make a mistake. Some xenoestrogens bind to receptors and send a false signal inside the cell. Others block the natural hormone and keep it from binding to its receptor. However, the most harmful estrogen mimic action is their ability to interfere with **estrogen metabolism**.⁶

After estrogen completes its activity in the target cells, it normally returns to the bloodstream to be broken down (metabolized) in the liver. Like all substances that the liver metabolizes, estrogen is broken down into "metabolites" through certain pathways. Researchers have found that estrogen can be broken down in two enzymatic pathways in the liver, resulting in two very different metabolites.^{6,7}

One pathway, the 2-hydroxy pathway, results in beneficial or "good" estrogen metabolites. These "good" estrogen metabolites are released into the bloodstream where they account for many of the benefits of estrogen, including the prevention of heart disease and strong, healthy bones.⁷

Where there's a "good" of something, there most often is a "bad" of it as well. And there is indeed, a "bad" estrogen metabolism pathway - the 16-hydroxy pathway. Estrogen broken down in this pathway results in "bad" estrogen metabolites.⁷ These metabolites result in hormonal metabolism imbalances, and can cause or worsen:

- Acceleration of the aging process
- Autoimmune disorders, such as rheumatoid arthritis and thyroiditis
- Anxiety
- Breast cancer

- Breast tenderness
- Cervical dysplasia (abnormal cells on the bottom third of the cervix)
- Cold hands and feet
- Decreased sex drive
- Depression
- Dry eyes
- Fatigue
- Foggy thinking
- Hair loss
- Headaches
- Infertility
- Irregular menstrual periods
- Irritability
- Insomnia
- Magnesium deficiency
- Memory loss
- Mood swings
- Osteoporosis
- Premenstrual syndrome
- Sluggish metabolism
- Uterine cancer
- Water retention
- Weight gain, especially around the abdomen, hips, and thighs
- Zinc deficiency.⁶

Q. How does estrogen dominance or hormone imbalance occur?

A. There are several ways this can happen. One way is through exposure to synthetic estrogens. Certain chemicals that are used in pesticides, plastics, and fuels (things we use everyday), "look" and act just like natural estrogen. Some synthetic estrogens bind to receptors and send a false signal inside the cell. Others block the natural hormone and keep it from binding to its receptor. Women are also exposed to excessive estrogens through certain animal products, if the animal was given routine hormones, through prescription medication, and through our obesity epidemic (hormones can accumulate in women's body fat and interfere with healthy hormonal activity in the body).^{6,7}

A treatment that's currently quite popular for hormonal imbalance is progesterone cream. Some women report relief of milder hormonal imbalance symptoms using progesterone cream. However, any additional progesterone that's delivered inside the body

(including through the skin) can be metabolized to estrogen. The result is even *greater* hormonal imbalance and estrogen dominance.^{1,4,6,7} In most cases, women don't need more hormones. Between the use of hormones in cattle and poultry, prescription hormone use, and exposure to xenoestrogens everyday, we could do with a little less of certain hormones!

We have the hormones we need, when we need them. What we do need, though, is help in *metabolizing* estrogen and keeping our hormones balanced.^{6,7}

Q. Well, then what is the best way to make sure estrogen is properly metabolized?

A. The answer is found in a natural plant compound called diindolylmethane (pronounced dye-in-doll-lil-methane), or DIM for short. DIM is found in broccoli and other cruciferous vegetables (cabbage, cauliflower, etc.). We've all known for many years that these vegetables are excellent sources of vitamins and fiber, and play a significant role in cancer prevention. However, scientists have only recently discovered that DIM provides significant health benefits in some pretty unexpected ways. DIM actually improves hormonal balance by shifting the way that estrogen is metabolized in our bodies. ⁷

DIM is able to shift estrogen metabolism to the 2-hydroxy pathway, the pathway that beneficial plant compounds naturally use. Taking supplements with DIM can result in increased amounts of estrogen broken down into the "good" estrogen metabolites. When DIM increases the "good" estrogen metabolites, there is a simultaneous reduction in the "bad" estrogen metabolites.⁷ DIM is like the traffic police, re-routing traffic to the safer pathway. However, DIM neither increases or decreases estrogen—it merely directs how it is metabolized.

Q. How much DIM should I take?

A. Most women need to take 120 mg of DIM complex, standardized to 25% DIM per dose. Since DIM is very hard to absorb, it needs to be in a specialized complex to improve bioavailability. Most women need only one dose of DIM a day. Because estrogen metabolism imbalance

can occur without any outward signs or symptoms, women often take DIM everyday even if they're feeling fine, to make sure estrogen is metabolized in the healthier pathway, which is associated with breast cancer prevention. However, women suffering with many estrogen imbalance symptoms may find even more relief by doubling the dose and taking DIM twice a day.⁷

Q. You mentioned Stages 1, 2 and 3. What should I expect in each of these lifestages?

A. Let's discuss each lifestage separately.

Stage 1: The Early/Fertile/ High Estrogen Years

Generally speaking, until women reach their late 30's and early 40's, their estrogen levels are high and their progesterone levels rise and fall appropriately.¹ However, women in their 20's and 30's have also been exposed to a significant amount of environmental and synthetic estrogens. This is most often realized by the predominance of premenstrual syndrome or PMS in this age group.^{7,8}

Long the fodder of insensitive jokes, this frustrating and painful cluster of symptoms occurs just before the onset of a woman's menstrual period. The severity of PMS ranges from mild to disabling and its presence tends to run in families. If your mom or sisters have problematic PMS symptoms, chances are you do, too.⁹

The physical symptoms of PMS include breast tenderness, bloating, fluid retention, headaches, backaches, and cramping. Women with PMS often experience food cravings that seem almost impossible to tame. Most often these cravings are for foods with lots of fat and sugar—like the infamous chocolate, or for foods that have lots of fat and salt—like chips and fries. PMS can also cause women to feel panicky, anxious, irritable, and depressed. Because these emotional symptoms often affect their relationships with the people they hold near and dear—children, husbands, families, and friends—they cause significant distress.⁹

While researchers don't know for sure

why PMS occurs, they do know it's related to estrogen and progesterone. Progesterone and estrogen levels are similar in women who experience PMS and in those women who don't. Therefore, it's quite evident that PMS is not a problem of too few or too many hormones. PMS is a problem of hormone and hormonal metabolite balance.^{4,6}

Q. Can DIM reduce the symptoms of PMS?

A. Yes, it can. By restoring estrogen metabolism to the 2-hydroxy pathway, DIM can increase the amounts of "good" estrogen metabolites and simultaneously reduce the "bad" estrogen metabolites. The result is relief from the pain and discomfort of PMS symptoms.⁷

Q. What other nutrients do women in this first stage need?

A. All women in their 20's and 30's need a superior multivitamin. It must contain the fat soluble vitamins – A, D, and E as well as the water soluble B vitamins and vitamin C. It's absolutely crucial that women in this age group obtain adequate amounts of folic acid. Also called folate, this B vitamin has made huge headlines recently for its powerful ability to prevent spina bifida, a serious birth defect.¹⁰

A multivitamin with cranberry can help reduce urinary tract infections.^{11,12} Women in this first stage should also look for chaste tree berry extract in their multivitamin formulas. This herb can help DIM reduce the symptoms of premenstrual syndrome.¹³

Two minerals are crucial to 20- and 30-something women. For any woman who is still menstruating, their multivitamin needs to contain iron to replace any losses that can occur each month.¹⁴ Young women also need calcium in their multivitamin to build healthy bones that will last a lifetime.

In fact, calcium is so critical that women in their 20's and 30's should seriously consider taking an *additional* calcium supplement.¹⁵ The most effective calcium is the form that's found in human bones: tricalcium phosphate.¹⁶ Recent study of tricalcium phosphate has demonstrated it may be the most bioavailable form of calcium with

superior absorption in our bones. Combined with vitamin D and magnesium, calcium triphosphate can help keep young women's bones strong, healthy, and resistant to fractures.¹⁷

**Stage 2:
The Perimenopause Years**

While women between the ages of 35 and 45 are **NOT** in menopause (we're still menstruating and still having babies) **something** is definitely going on hormonally. Many of us in this age group are experiencing:

- Unexplained and unfair weight gain
- Sore, lumpy breasts
- "Changing thermostat"
- Heavier or longer menstrual periods
- Increased menstrual cramps
- Loss of sex drive
- Irritability and shifting moods
- Foggy thinking
- Insomnia or poor sleep quality.¹⁸

These symptoms all point to perimenopause, a period in women's lives defined by fluctuating hormones.^{18,19} The conventional medical treatment is most often the prescription of progesterone in cycled doses. The integrative answer to these symptoms is a collection of natural herbs and nutrients with proven effectiveness and safety.

Q. Since DIM balances our hormones, can women safely take both DIM and the herbs listed above to reduce the symptoms of perimenopause?

A. Absolutely. And they'll probably experience improved relief from hot flashes, muscle tension, mood swings, and other perimenopausal symptoms.⁷

Q. What other vitamins and minerals do I need if I am in this lifestage?

A. A multivitamin is a must. If you are still menstruating, you need a formula that contains iron. If not, you can easily meet your iron needs from food, and excess iron can be unhealthy so your multivitamin should be iron-free.¹⁴ The other multivitamin nutrients that women in the first stage are taking will work well for you, too.

However, you need more advanced bone nutrition. Not only is your need for calcium critical, you need specific nutrients to preserve adequate mineral mass, maintain strong supporting structures, and promote repair functions. You need a calcium-based formula enriched with vitamins and minerals to make sure your bones remain active and healthy.

Stage 3: The Menopause Years

On the November 2003 cover of *AARP-The Magazine*, the beautiful and vibrant model and actress Lauren Hutton is

anything they want.³³ And to make sure this opportunity isn't lost, they're using a variety of dietary supplements to maintain their health and vigor.

Just like their younger sisters and daughters, menopausal women require optimal levels of vitamins, minerals, herbs, and other nutrients that only a superior daily multivitamin can provide. Women in this age group don't need iron, but they do need calcium, magnesium, phosphorus, copper, zinc, and other minerals. They need both fat soluble and water soluble vitamins. Grape seed, bilberry, black tea, cranberry and cherry fruit extracts are full of anthocyanidins and antioxidants that are important at any age.^{11,12, 34-39} And lutein and zeaxanthin intake is associated with the prevention of macular degeneration, a leading cause of vision loss in people over 50.⁴⁰

Q. What about those frustrating menopausal symptoms? What can women safely take to relieve them?

A. Because menopause signals the end of a woman's fertility, her ovaries slowly stop producing estrogen and progesterone. Her periods become less frequent and more irregular, finally stopping about 3 to 5 years later. She may experience intense hot flashes, wild mood swings, joint pain, and vaginal dryness. She is also more vulnerable to heart disease, osteoporosis, and other health problems.^{18,19}

Until recently, hormone replacement therapy (HRT) was the treatment of choice for women in menopause—not only to reduce the hot flashes, insomnia, and other distressing symptoms of menopause, but also to provide protection against heart disease and breast cancer. However, in July 2002, researchers conducting a very large clinical study discovered that HRT does not prevent heart disease or breast cancer. It causes them.² The study was actually halted for safety reasons, and the women in the HRT group were told to cease the use of the study medication.³

Many of the 20 million women taking HRT heard this alarming news and began to search for less harmful ways to manage their menopausal symptoms. They contacted their healthcare practitioners, logged onto the Internet, and

Perimenopause Herbs	Natural Perimenopause Symptom Relief
Black Cohosh	Relieves hot flashes and reduces mood swings; Keeps night sweats at bay ²⁰⁻²²
Green Tea	Adds energy, maintains breast cell growth, and helps to keep weight under control ^{23,24}
Chaste Berry	Provides <i>natural</i> balance of progesterone ^{13,25}
Rhodiola	Enhances concentration, energy, alertness, and endurance ²⁶
Valerian and Hops	Promotes relaxation and deeper sleep ²⁷⁻³⁰
L-Theanine	Alleviates nighttime muscle tension and promotes restful sleep ^{31,32}

Giving a woman *synthetic* progesterone to treat fluctuations in normal progesterone levels makes no sense. The natural ingredients listed above make perfect sense. They work *with* a woman's body as she journeys through perimenopause.

pictured under the banner headline: Sixty is the New 30! While the statement might initially seem improbable, thousands of women celebrating their 60th birthday as the 21st century unfolds are living proof it just might be true. More and more women are looking at the years of menopause and beyond, as an opportunity to become

called their mothers, sisters, daughters, and friends looking for solutions.³

What they found was that they did not have to choose between hot flashes and heart disease. There are safe, effective, and 100 percent natural dietary supplements that effectively treat hot flashes,

women this age have been exposed to for decades, and it's easy to see how even menopausal women are at risk for problems with estrogen dominance.⁷ Changing levels of hormones can become imbalanced. Women in menopause and beyond may reduce their risk of breast, cervical, and uterine cancers, as well as

Menopause Herbs	Natural Menopause Symptom Relief
Black Cohosh	Relieves hot flashes and reduces mood swings; Keeps night sweats at bay ²⁰⁻²²
Ginseng	Increases energy, reduces stress, and helps black cohosh work better. ^{4,1}
Green Tea	Increases alertness. ²⁴
Valerian and Hops	Promotes relaxation and deeper sleep. ²⁹⁻³¹
L-Theanine	Alleviates nighttime muscle tension and promotes restful sleep. ^{32,33}

reduce mood swings, and relieve insomnia. The herbs listed in the table below have been used safely and effectively for centuries.

Of course, you need to split up these herbs, and take those that improve sleep in the evening, and those that improve alertness and energy in the morning.

What better way to treat the symptoms of menopause? After all, menopause is a natural process and a normal part of aging, not a disease in need of cure or treatment with synthetic hormones. If you consider for a moment that a healthy woman can expect to live more than half her adult life *after* menopause, it should be apparent that menopause is definitely not the end of life, but simply another adult transition.³³

Q. Can even menopausal women benefit from DIM?

A. Because women in menopause still produce small amounts of estrogen and progesterone, DIM may be beneficial. It seems women's fat cells make estrogen, while the adrenal glands make minute amounts of both hormones. While these remaining hormones aren't present in levels high enough to complete reproductive functions, they can be high enough to cause symptoms associated with hormonal imbalance. Combine these "natural" hormones with the synthetic and environmental estrogens that

osteoporosis, a serious disease that primarily affects older women, by taking DIM every day.

Q. Why is osteoporosis considered a serious disease if it is just thinning bones?

A. A well-respected calcium researcher recently stated that osteoporosis is a childhood disease that has dire consequences in later adulthood. That's because too little calcium for too long a time will lead to this destructive and often fatal disease.⁴²

Osteoporosis develops very slowly. Its first symptom is often a broken bone. Osteoporosis causes roughly 1.5 million bone fractures each year. The spine, hip, and wrist are the most common sites. Spine fractures can lead to loss of height and a "dowager's hump"—a somewhat bent-over posture in older women. And osteoporosis related fractures can be dangerous. Up to 20% of women who suffer an osteoporosis-related hip fracture will die from complications within one year.⁴²

While an adequate calcium intake during childhood is essential to prevent the disease, calcium intakes of 1,000 to 1,200 mg a day in adults has been shown to significantly reduce the risk of osteoporosis-related fractures.⁴³ Women in menopause need superior bone-building supplements. Look for a formula

loaded with bone healthy vitamins and bone-building minerals, including trace minerals like boron and strontium, often missing from simpler calcium formulas.

Conclusion

Women with PMS and estrogen dominance, women in perimenopause, and women in menopause don't need more hormones, they need to restore their body's hormonal balance. Hormonal balance refers to the healthiest, most beneficial mix of all your hormonal messages. It is the key to helping you stay healthy and resist aging. Hormonal imbalance can result in a long list of miserable symptoms.

It's hard to understand how women's age-related health issues got so complicated. When you stand back and look at the big picture - estrogen imbalance and dominance, perimenopause, and menopause - it is easier to understand. Our reproductive system revs up, then winds down, just as Mother Nature intended. And along the way we need to keep ourselves balanced, well-nourished, and fortified for the future.

Your body is brilliant. It knows what it needs as you celebrate successive birthdays, as you leave one stage of life for the next, as you grow wiser and stronger and even more full of life. It just needs your help by taking a few natural nutrients to meet the needs of the reproductive lifestages that are common to all of us.



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