

Natural Ways to Approach Hormonal Fluctuations:

Hormonal fluctuations are common in women from puberty to menopause. They can be unpredictable, especially when they start. Fortunately, if we make healthy changes a priority throughout our lives, managing hormonal symptoms will often be smoother. This article focuses on addressing hormonal issues during the transition through peri-menopause and menopause. However, the principles of addressing hormonal issues are the same if you are in your 20's or 40's.

I often get the request, "help me with my hormonal symptoms in the most natural way." For some women that means they want bio-identical hormones, for some that means supplements and for some it means lifestyle and dietary changes. Addressing symptoms is not a "one size fits all". You will feel your best if you address each of these areas. The best way to start depends on how you feel AND what you think you can do, I prefer to start with exercise, diet, stress management and sleep. If you are really miserable, you may need to start with hormones.

There is so much information about hormonal fluctuations and management, much of it is conflicting, just incorrect or causes fear and anxiety. What helps one woman may not work for another and what may work now may not work in a year (remember hormones fluctuate before menopause). This article focuses primarily on healthy diet, exercise, sleep and stress management. Vitamins, supplements and alternative treatments are included. Many women benefit from taking hormones, that is beyond the scope of this article.

Peri-menopause: The stage before menopause when a woman is still having periods but hormonal fluctuations are occurring, the balance of hormones is off. Usually this means there is too much estrogen and too little progesterone. Some women have terrible symptoms and some have none. Notice - no defined time frame, so different for every woman.

Menopause: Menopause is when your ovaries stop making hormones, average age is 51.

Common symptoms of hormonal fluctuations:

- change in frequency and flow of periods (sometimes heavy and sometimes light)
- hot flashes, night sweats
- trouble sleeping (falling asleep and staying asleep)
- mood swings, irritability, depression, anxiety
- foggy thinking
- irregular heartbeat
- Joint aches
- fatigue
- hair loss/thinning/facial hair
- vaginal dryness, decreased sex drive
- Bladder symptoms - urge or leaking
- weight gain especially around the midsection or difficulty losing weight.

Whether these symptoms are related to imbalance or low levels, they can also be affected by other functions in our body, either working in harmony to feel better or working together to feel worse.

Sex Hormones: Benefits and Symptoms: (Circle your symptoms)

Hormone:	Benefits	Symptoms if Low	Symptoms if High
Estrogen	Builds bone, helps brain function, mood and sense of well being, supports urinary tract health, vaginal health, protects against Alzheimer's and heart disease, improves sex drive, healthier skin, decreases wrinkles	Hot flashes, night sweats, decreased sex drive, vaginal dryness, more UTIs, leaking urine, brain fog, mood swings, depression, sleep issues, irregular or no periods	Weight gain, heavy or irregular periods, mood swings, breast tenderness, bloating, headaches, irritability
Progesterone	Decreases anxiety, sleep better, helps brain fog, helps bloating	Wake up between 2-4 am and can't get back to sleep, brain fog, all PMS symptoms, midcycle spotting or irregular bleeding, cramps, insomnia, anxiety, years of too much estrogen and low progesterone increase risk of uterine cancer.	cry easy, breast tenderness, irritability, headache, fatigue, nausea
Testosterone	improves mood and overall feeling of wellness, helps with weight loss, improved energy, helps thinking and memory, increases sex drive, protects bones, builds and maintains muscle	Decreased energy, depression, anxiety, difficulty with weight loss, saggy skin, increased belly fat, low sex drive, foggy thinking	Acne, oily skin, aggressive, male pattern hair growth such as facial hair and male pattern baldness, voice deepening, abnormal cholesterol, insulin resistance, weight gain

Many of these symptoms are on each list AND may also be signs of other issues such as hypothyroidism, diabetes, insulin resistance, stress or other medical conditions.

Are my symptoms only related to my female hormones? There is a good chance that even if your symptoms are all related to your female hormones, other issues like stress or untreated diabetes will worsen your hormonal symptoms, so best to address all related issues. For many women, dealing with each one of these groups and not just the sex hormones alone will bring the most relief of symptoms.

There are 4 groups of hormones that can interact to worsen female hormonal symptoms if unbalanced: blood sugar and blood sugar hormones (insulin, and glucagon), stress hormones from the adrenal gland (cortisol, adrenaline), thyroid hormones and female hormones (estrogen, progesterone, and testosterone).

The following are examples of interactions between these hormone groups.

- For example, two women may have hot flashes, one is post-menopausal with low estrogen and the second woman is peri-menopausal and eating too many carbs. For both women, I could give them estrogen and both would feel better but the second one may feel better by just changing her diet.
- Women who are overweight or obese (BMI>25) have a greater imbalance in hormone levels. Each fat cell produces a weak estrogen and that results in too much estrogen and not enough progesterone. Increased number of fat cells causes increased testosterone and that also causes imbalance of estrogen, progesterone and increases insulin resistance and diabetes. Insulin resistance causes more weight gain, more fat cells...
- A common but under-recognized issue: stress causes our body to make more cortisol and less sex hormones, that leads to feeling worse, sugar cravings, weight gain, more fat cells...

- Sugary foods cause a bigger increase in insulin, that causes us to store more fat.
- Fluctuations in blood sugar triggers hormonal symptoms.

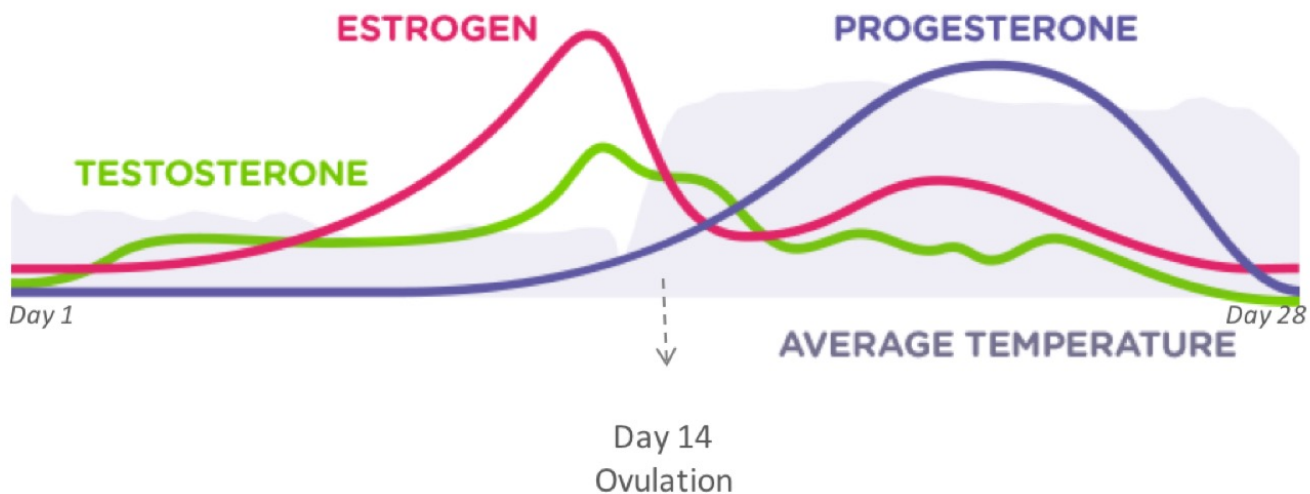
Adrenal glands. Before moving on, I would like to focus on our adrenal glands. Adrenal glands are tiny glands that sit on top of our kidneys. They make our stress hormones: cortisol, adrenaline and norepinephrine. If we are under stress, our body will prioritize making stress hormones. Our body “steals” the nutrients from female hormone production, the result is low progesterone, low testosterone and high or fluctuating estrogen, this happens throughout a woman's life, not just around menopause. For most women if we support our adrenals by reducing stress, we allow our body to make more female hormones. Stressors fall into 3 categories: emotional stress (not relaxing, fear, relational issues...), physical stress (disease, too little or too much exercise, less than 8 hours of sleep/night, food allergies to name a few), chemical stressors (tobacco, blood sugar fluctuations from skipping meals or too many carbs, caffeine, coffee). The lifestyle recommendations in this article will support your adrenal glands. This is under-recognized yet SOOO common!

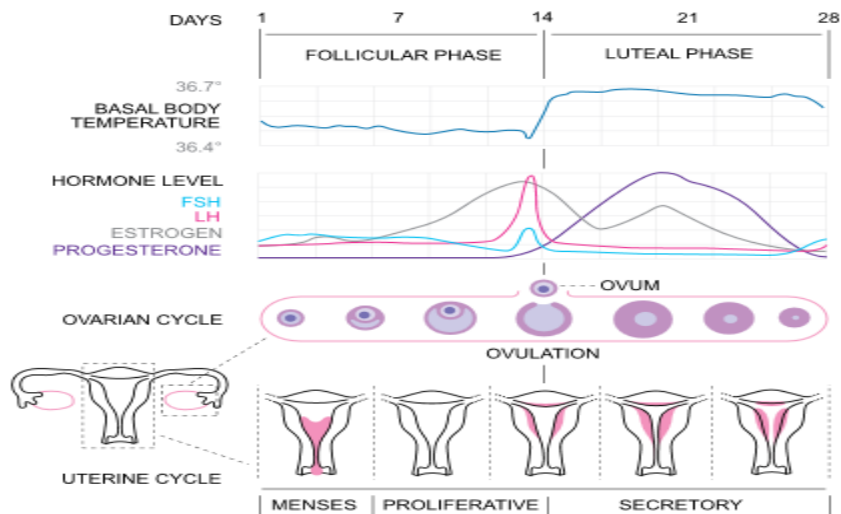
Many women find it helpful to keep a calendar of their periods and symptoms (fill out symptom evaluation, app: (there are many) consider iperiod); this will help you identify your symptoms and triggers (ex. Stress, sugar binge, periods, ovulation, bad day...). Remember each group of hormones discussed above.

WAYS TO FEEL BETTER:

Adopt a healthy lifestyle that includes diet changes, sleep, exercise, managing stressors and address the emotional results (depression and anxiety) that go along with these problems. Then consider hormonal therapy, vitamins or supplements. If you take hormones, you will see the most benefit when you also adopt a healthy lifestyle.

Please look at the graph below, it shows normal hormone levels throughout the entire menstrual cycle, please note that you can have your blood drawn at certain times of the month where hormone levels are normally low. The best time to check estrogen, progesterone and testosterone is day 21 of a 28d cycle. Also remember that birth control pills suppress hormone levels so testing while on birth control pills is not accurate; birth control pills work by suppressing hormones so ovulation won't happen.





Weight gain in your 40s-50s: Why do we experience weight gain? Women will tell me that they haven't changed their diet or exercise routine and so they are caught off guard when they start gaining weight. Weight gain is due to a combination of the following factors:

- Stress (release more stress hormones which signal your body to hold onto fat and stress leads to comfort eating, this causes increased weight around the midsection), metabolism slows as we age
- On one hand, Americans are less active and that leads to weight gain and on the other hand, there are good studies that show after age 30, exercise alone won't lead to weight loss for most women, typically only helps maintain weight..
- Loss in muscle mass as we age means we burn fewer calories
- High sugar intake (many people do not recognize how much sugar they eat, if you eat processed foods, dairy products, fast food, sodas, fruit juices or sports drinks, you get too much sugar). As weight increases the body has a harder time regulating blood sugar so it makes more insulin which further increases weight. As a woman gains weight, she increases her risk for heart disease, stroke, breast cancer, diabetes and arthritis AND she doesn't feel as good!

Many women also see a decline in self esteem as their body changes and they feel that they can't control these changes. During this phase, we can choose to continue on the same path of weight gain and not feeling our best and increase risk for diseases OR we can make the changes to choose better health. For most women, making changes is overwhelming and they don't do it or if they do, only for a short time. Many woman, if not successful also feel Shame or Guilt. IT is hard to acknowledge these negative feelings, the best way to address difficult issues is to name them and claim them, then make do-able changes.

"Self-care is never a selfish act - it is simply good stewardship of the only gift I have, the gift I was put on earth to offer others. Anytime we can listen to true self and give the care it requires, we do it not only for ourselves, but for the many others whose lives we touch."
Parker Palmer

LAB WORK: Depending on symptoms, lab work can be helpful.

1. Blood sugar: fasting blood sugar, hemoglobin A1C (tests for diabetes and insulin resistance)
2. Thyroid function tests: TSH, free T4, free T3, thyroid antibodies, reverse T3
3. Vitamin D - most women are deficient
4. Vitamin B12 - many women are low
5. Testosterone
6. Progesterone on day 21 of your cycle
7. Estradiol d3 or 21
8. Cortisol in the a.m.
9. DHEAS
10. FSH/LH
11. HS - CRP (measure of inflammation)

Nutritional Changes

Why should we look at food FIRST? Our bodies run on food! The food choices we make have an affect on every function in our body, every time we eat. We need healthy food packed with nutrition for energy! If we are careful about filling our car with the correct fuel, why not do the same for our bodies???

Eating nutritious foods is becoming more challenging due to changes in our food sources: more sugar, bigger portions, more preservatives, farming practices that make even fresh fruits and vegetables less nutritious and an increase in use of gluten as fillers in all sorts of food. Do you realize that the boxed cereal we eat today has more sugar than 10 years ago? Do you realize that the reason chicken breasts are twice as big now than 10 years ago is because of hormone treatment of the chicken? Do we wonder how those estrogen like hormones affect us? Do you realize even though the quantity of food we eat has increased, the quality has decreased and that many adults have nutritional deficiencies, even if they are overweight?

Please review the following recommendations, remember the goal is to feel better and be healthy. If big changes are overwhelming, try 2 or 3 and see how it works. Always break down a problem into manageable pieces. Make changes for 3-4 weeks, follow those changes carefully and then reassess and make new changes. Consider a calendar or even a spread sheet. When I changed my diet after having my son, I got stressed and overwhelmed, that was not the result I wanted so I started slow and made careful changes. Remember, the successful changes need to be life long if you want to continue to see the benefit.

What diet changes will you stick with? Some women are more successful with elimination approach then add back and some women prefer slowly reducing "the bad stuff".

The way we eat also affects our weight. To improve absorption of nutrients, sit down when you eat, chew your food, eat slow. I learned to eat really fast in med school and residency, I would often overeat because I could eat a whole meal and more before it even registered in my brain that a huge amount of food just hit my stomach. I would go from starving to so full I couldn't move!

How you sense hunger affects your weight. Many people can't tell the difference between true hunger, cravings and thirst. Cravings feel like hunger but are often stronger, if you want sweets, unhealthy food or just too much...it's a craving. Many people are mildly dehydrated and that sensation can feel like hunger, if you think you are hungry between meals, drink 8-12 oz of water and go about your business, if you are hungry, you will feel it. Lastly, learn to eat when you are hungry, not when you are starved, if you are starving, you will overeat.

Drink mostly water, drink at least 60-80 oz/d. Avoid alcohol, caffeine, sodas (diet and non-diet both cause weight gain), juices (too much sugar). Minimize the amount you drink at meals, it affects absorption...

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A. Healthy diet (the way we should eat if we want health and vitality):

Eating nutritious foods is just as important as avoiding unhealthy foods. Our diet should be a balance of protein, complex carbohydrates, fresh vegetables and low glycemic fruits. A popular diet, intermittent fasting, where you eat only during a 8 hour window in 24 hours often means a meal is skipped, either breakfast or dinner. There are some studies that show if you skip breakfast, you may gain weight, it may have to do with timing or when you eat, or if you overeat, so if you try intermittent fasting, be careful and monitor your weight closely. Most nourishing breakfasts are a combo of healthy fat, protein and complex carbs (my favorite is hard boiled egg and 1/2 avocado on a thin slice of sprouted bread)

1. **Fresh Vegetables:** If you eat a variety, you will get the majority of nutrients that you need. Your body uses nutrients from food much better than from a supplement. These foods decrease the risk of heart disease and stroke and many cancers, either directly by the nutrients or indirectly by reducing weight gain. Eat a variety of veggies (at least 4-6 servings/day). Plan ahead to make healthy snacks easy: cut fruit or cut veggies in the fridge for easy snacks. When my son was younger, I would make a plate of cut veggies/ fruit for him to eat while I made dinner, he loved it.
2. **Fresh fruits:** Fruit is healthy and they contain sugar. Whether sugar is coming from fruit or something else, your body processes the final product, glucose, the same. Choose low glycemic fruits, goal <55.
3. **Fiber:** Diets high in fiber decrease the risk of heart disease, stroke and type 2 diabetes. Fiber helps you regulate your insulin and blood sugar and improves the frequency of bowel movements (regular bowel movements help you get rid of toxins). The recommended amount is 30 grams/day. Good sources: most veggies, beans, prunes, peas, almonds, peanuts, brown rice, green beans, fruits, chia seeds, ground flaxseed (eat it soon after you grind it). Read food labels. If you don't eat 30 grams/d, increase slowly, if you increase too quickly, you will have bloating and gas.
4. **Fat:** Avoid unhealthy fat and increase healthy fats.
 - a. **Avoid Saturated and trans fat.** 40% of intake of these fats are from fast food, store bought cakes, cookies, crackers, pies, cupcakes and white bread. An easy way to avoid these is to read food labels OR just avoid packaged/processed food.
 - b. **Eat healthy fats:** Monounsaturated fatty acids (MUFAs) are a healthy type of fat. MUFAs reduce your risk for heart disease, lower total cholesterol without lowering good cholesterol, HDL. MUFAs help control blood sugar and insulin. Eating MUFAs if you have type 2 diabetes is beneficial. Be careful of amount you eat because they are high in calories. Examples include:
 - 1) Oils: Olive oil, coconut oil, flaxseed oil
 - 2) Nuts: almonds, cashews, pecans, macadamias, pistachios, pine nuts, peanuts, nut butters
 - 3) Seeds: chia and quinoa (also double as grains), sesame seeds, pumpkin seeds, sunflower, ground flaxseed, poppy seeds
 - 4) Others: avocados (MY FAVORITE), olives, poultry, eggs, beef (grass fed, organic), dark chocolate. **Read food labels.**
5. **Whole grains:** Grains fall into 2 categories, whole grains (complex carbs) and refined grains (simple carbs).
 - a. **Complex carbohydrates (high in fiber, improves digestion, provides energy):**
 1. Whole grains include the entire grain kernel such as whole wheat flour, bulgur, oatmeal, brown rice, quinoa, whole wheat cereal, whole wheat bread, tortillas or spaghetti. MOST PROCESSED FOODS don't use whole grains even if

stated on the label so look at the ingredient list AND make sure whole wheat is at the top of the list.

2. Other sources of complex carbohydrates: fruits and veggies, some can be a good source of protein as well: bananas, carrots, chickpeas, beans (navy, kidney, pinto), sweet potatoes, lentils.

- b. Refined grains have been processed to remove the bran and germ, eating these significantly increase blood sugar which increases insulin and causes you to store that sugar as fat, leading to weight gain. It has a finer texture and longer shelf life but this process removes dietary fiber, iron, and many B vitamins. Examples: white flour, white bread, white rice, couscous, flour tortillas, white pitas, sweets.

6. Protein intake:

a. Lean meat protein options include: poultry, fish, canned tuna, or grass fed organic beef (limit to 3-4 oz, size of a deck of cards!).

b. Vegetarian sources include: legumes, beans, chickpeas, nuts, chia seeds, natural nut butters, tofu, tempeh.

c. Other sources: eggs, fat free plain yogurt or Greek yogurt (dairy can be a good source of protein but best to limit, watch out for added sugars in yogurt).

7. **Calorie intake:** Calorie intake is based on age, weight, gender, height and activity level. The following calculator: <http://www.internetfitness.com/calculators/bmr.htm> can help you figure out your basic metabolic rate, this helps you figure out the amount of calories you need in a day. You won't lose weight and maintain that weight loss if you are cutting calories and the food you eat is unhealthy. If you limit calories too much (probably shouldn't limit to <1500 cal/d) then you slow down your metabolism and when you increase your calories again, you will gain more weight.

Remember, food calories are not all the same, they can have different affects. For example, if you eat a snack that has the same calories, such as an apple compared to a snack of crackers, cookies or chips. The apple, because it also has nutrients and fiber will be processed mostly as energy and not stored as fat. The other snack, whether it is cookies, chips or crackers will increase insulin more than the apple which leads to storing more of the calories as fat. Same calorie snack but one results in storing fat and the other making energy. Give me the apple!

B. Foods to eliminate:

1. **Added sugar:** *If this is the only change you make, it is worth it!!!* Foods that make your blood sugar spike will cause weight gain, increase hormonal symptoms, fatigue, irritability, brain fog. I see many patients come in complaining of hormonal symptoms and they reduce their hormonal symptoms by at least 50% just by reducing simple sugars!!! In the typical American diet, 21% of simple sugars come from soft drinks, 18% come from sweets, 13% come from bakery desserts, 10% come from ice cream, pudding, yogurts and other milk products, 6% come from breads, and 5% come from breakfast cereals. Avoid high fructose corn syrup.

UGH!!! How do I beat sugar cravings? Sugar cravings can be an issue for anyone. Often hormonal imbalance and stress makes it even harder to control. The following are ways to control sugar cravings, there is no one size fits all

- When do you crave sugar the most? Eliminate access to junk during that time
- Add protein and healthy fat to every meal

- When you have the craving, drink 8-12 oz of water and walk away
- Decrease alcohol and caffeine
- AVOID sodas: sugary or diet cause you to eat more and increase cravings, sodas have ZERO health benefits!!!
- Some women see a reduction in cravings when they are managing stress - using mindfulness, deep breathing, distraction (such as going for a walk, spending time with someone you enjoy)
- Herbal supplement (*don't use if pregnant/breast feeding/diabetes/on diabetes medications such as metformin*)
 - glutamine 500-1000mg empty capsule on your tongue when you have a craving
 - Sweet Defeat lozenges on your tongue when you have a craving (by Sweet Defeat) - changes the taste of sugar so it isn't appetizing
 - Gymnema (in sweet defeat) 200 mg 1-2x/day can help suppress cravings

2 approaches to decrease sugar intake:

a. **Limit sugar:** < 6 teaspoons or 25gm/d. READ FOOD LABELS!!! Look at the number of carbs per serving (servings are smaller than you think).

i. **Avoid anything low fat because sugars are added to improve the taste, low fat food causes weight gain.**

ii. **Avoid sugar substitutes except for stevia, all other sugar substitutes affect insulin the same way that sugar does**

b. **Glycemic index (GI)** www.glycemicindex.com or glycemic app. Goal for GI <55. The GI tells us how a food affects blood sugar. A high glycemic food will significantly increase your blood sugar which causes a significant increase in insulin (higher levels of insulin increases the chance that sugar will be stored as fat). Decreasing sugar in our diet is probably the most important way to feel better and lose weight. Look up the GI of your top 30 foods that you eat, if the GI is high, choose another in the same food group with lower GI. For example, watermelon has a high GI, so instead eat berries. The benefit of using the GI, helps you make better food choices.

2. **Gluten:** So much of our food has added fillers, gluten is a common filler. Most people can tolerate gluten in food naturally but can't tolerate the large amount used as fillers. Gluten can cause many symptoms. The benefits of limiting gluten can be amazing. Most women feel better within a week but it may take 3-4 weeks. Eliminating gluten means eating: fresh fruits, fresh veggies, lean meats, nuts, beans and avoiding processed foods. After 3-4 weeks, you can start slowly adding food back (approach: add new food back every 3-4 days). If you are not better in 3-4 weeks, gluten may not be a problem.

3. **Dairy:** Many people, as they get older, become intolerant to lactose. If you have any stomach issues at all, eliminating dairy may make you feel better, after 3-4 weeks, you can slowly add back. Watch out for added sugars in dairy products, especially yogurt.

4. **Alcohol:** There are health benefits in moderate alcohol intake (defined as 1 drink/d for women) but too much can increase heart disease and many other health issues (cancer of the mouth, esophagus, breast cancer and liver disease/cancer). Alcohol damages the liver, we depend on our liver and kidneys to clear toxins from our blood! Alcohol often increases hormonal symptoms, especially night sweats and hot flashes. Alcohol increases sugar craving, lowers sleep quality, and causes weight gain. **Either eliminate or drink 3 or less drinks/week.**

Exercise: Just move!!! Start out with whatever you enjoy for any amount of time. Consider starting 15-30 minutes of exercise 3 times per week, and then increase the time or intensity. Start slow especially if you are out of shape or have injuries, you don't want to get hurt. A helpful rule that I have used in the past is the "10% rule": increase time or intensity by 10% every week. Remember pick a realistic plan that you can do.

Even if you are in shape, high intensity may not be the best choice because it causes stress to the body and can increase risk of injury. Scientific studies have shown that exercise alone does not lead to weight loss in women in their 30s and older. It will often help maintain weight but not weight loss. Exercise does make you feel good, it is the most effective natural treatment for depression and anxiety!!!

1. Cardio: sweat and burn calories, releases endorphins that improve mood and sleep. Examples of cardio with lower risk of injuries: biking, walking, hiking, spinning.
2. Yoga or Pilates: increases strength and body awareness, improves hot flashes, sleep issues, and emotional symptoms such as: irritability, depression and anxiety.
3. Strength training: strengthen upper body, lower body, and core 2-3x/week. Goal >15 min per session. Some prefer going to a personal trainer, home options include fitness bands, hand weights, yoga ball, pull-up bar (with an assistance band), TRX system. We lose muscle mass as we age, building lean muscle mass helps our metabolism and helps us process sugar more efficiently to minimize weight gain.

Stress reduction: In studies, 75% of women have moderate to severe stress. Stress is one of the hardest areas to control but also one of the most important. Stress causes an increase in cortisol (stress hormone) and adrenaline, cortisol increases our blood sugar, which increases our insulin, insulin causes fat storage. Having too much cortisol for too long will cause us to crash with fatigue.

How do we address stressors? Start with the facts: there are only 24 hours in a day and we are human. We require food, sleep and movement to survive. For most women, the biggest stressor is that they are doing too much. Removing one thing from the "to do" list won't give you enough margin, you have to remove or change more. Remember, even too many good things create stress; "good stressors" such as exercise cause the same changes in our bodies as "bad stressors". When my husband went to a more flexible schedule to be more available for our child, he wrote down EVERYTHING that we do on a spreadsheet and we "reassigned" our duties, the result was that we knew what we were supposed to do and we did the things that we preferred to do (yes I cook!).

The following ideas have been proven to help manage stress. I have seen these work for patients and myself.

1. Don't automatically say yes when someone asks you to do something. Think about it. Remember when you say Yes to something, you are saying No to something else. Often when I say yes to something, that means I am saying no to family or needed personal time...that makes me pause and rethink a Yes. There are only 24 hours in a day!
2. Multi-tasking - there is no such thing as multi-tasking, we cannot do more than one thing at a time, not really, don't kid yourself, you are not present when you try. I like the analogy of being a computer with windows open, if you have more than one window open, are you seeing all of them? No. When you have too many open, is the computer is slower? Yes.
3. Deep breathing/belly breathing - deep belly breathing will slow your heart rate and put you into a more relaxed state. Consider deep breathing for 5 minutes 2x/d or when you are anxious or stressed.
4. Meditation or Prayer. Meditation is not a way to control thoughts or have no thoughts but to direct thoughts. Prayer also focuses direction of thoughts.
5. Mindfulness/Gratitude practice
6. Gentle exercise
7. LAUGH
8. Spend time with friends
9. Diet changes to reduce affects of stress:
 - a. Low glycemic foods, GI<50-55 or <25 gm added sugar/day

- b. Avoid alcohol, caffeine, tobacco, soda; these increase cortisol
- c. Increase healthy fats, omega 3 fatty acids in supplements or food

10. Supplements (chronic stress depletes many nutrients our body needs to maintain its healthy functions):

- a. Omega 3 fatty acids 2-4 gm/d
- b. B complex - stress depletes these (Thorne research basic B complex, Integrative therapeutics Active B capsule) or go to local vitamin store and get advice on B complex vitamin
- c. Magnesium 400-800 mg before bed can help you relax
- d. Phosphatidylserine 400-800mg/d, start with 400 and if no benefit increase to 800 in 2 weeks (Now foods or Integrative therapeutics), can help some people with acute stress
- d. Rhodiola - supports adrenals, 200 mg 2x/d

SLEEP: Sleep is when our bodies restore themselves. Studies have shown that <10% of humans thrive on < 7 hours of sleep at night. 40% of women have sleep disturbances.

1. Slow down the hour or 2 before bed, most people can't be running like crazy, hop into bed and fall asleep
 - Consider reading a book or magazine before bed.
 - Deep breathing exercise
 - Prayer or meditation
2. Try to go to bed about the same time every night, best before 10pm
3. Avoid sleeping with pets
4. Make sure the temperature is comfortable - most people are comfortable at 68 deg, for those with night sweats you may prefer cooler or layers. Some people are more comfortable wearing socks at night.
5. Warm shower before bed can make you sleepy and more relaxed at night.
6. Lose excess weight - weight gain can cause sleep apnea which causes daytime fatigue.
7. Avoid TV or screen time for the hour before bed, avoid bright alarm clocks- causes too much stimulation to the brain so it is harder to fall asleep.
8. White noise
9. Food - avoid sugar before bed, if you get hungry at night try a snack 1 hour before bed - protein and MUFA
10. Avoid caffeine after noon
11. Minimize fluids before bed to avoid waking up to pee, go to the bathroom right before bed
12. Avoid alcohol before bed - you may fall asleep faster but sleep won't be restful, alcohol can increase hot flashes and night sweats
13. Try to avoid prescription meds for sleep - they can become habit forming and contribute to memory loss, even though you fall asleep faster, you are not as well rested because you do not spend enough time in REM sleep, occasional use is fine in certain situations.
14. Exercise but not within 2 hours of going to bed
15. Herbal supplements (be careful, may affect other supplements or interact with meds)
 - A. Melatonin - start with 1 mg before bed, if not helping after 3 nights, try 3 mg, works only if you are sleeping in a pitch black room
 - B. Magnesium 400-800 mg before bed (May cause diarrhea).
 - C. Vitamin D3 1000-2000/d

- D. Valerian 300-600mg before bed, be careful because a small number of people feel wired, can interact with many medications
- E. 5-HTP 50-100 mg night, be careful can interact with meds, don't use if you are on an antidepressant
- F. Tryptophan 500 mg nightly
- G. Hops 100mg/night
- H. GABA can have a calming effect, try GABA calm from Source Naturals

*** For supplements - use lowest effective dose

Interventions for specific symptoms:

1. Low estrogen: hot flashes, night sweats, mood swings, irritability, difficulty sleeping
 - TRIGGERS TO AVOID: skipping meals or very low calorie diet, caffeine, avoid alcohol especially before bed, avoid high fat meal, avoid high sugar intake especially before bed (low glycemic index), don't go to bed hungry, avoid alcohol before bed, reduce stress!
 - Other: yoga, acupuncture, exercise but not within 2 hours before bed, meditation, stop smoking, sleep in cold room, layer clothing to easily remove layers when too hot, deep breathing (5 min 2x/d or when anxious or stressed)

Specific symptoms:

Vaginal dryness	Vaginal moisturizers(can use daily): replens, coconut oil, luvena Lubricants: replens, coconut oil, Slippery stuff Vitamin E 400/d (by mouth)
Mood swings/ irritability	yoga, acupuncture, exercise, vit B6 (100mg/day), magnesium 400-800mg/night, meditation, reduce sugar intake, avoid Blood sugar swings, reduce or eliminate alcohol and caffeine, deep breathing
Sleep issues	See sleep section above
Fluid retention	decrease sodium: Sodium causes fluid retention and blood pressure elevation. Avoid soft drinks, processed food, chips and frozen food. Read food labels , you will be surprised at the amount of sodium in food.
All Sx	AM/PM menopause or perimenopause supplement Maca (include red Maca) 2000mg/d (sleep, hot flashes, depression, energy) Vitamin E 400/d (hot flashes, vaginal dryness) Cut out gluten (all symptoms) Ground flaxseed 1-2 T 1-2x/d B complex (all symptoms, energy) Fish oil 2-4 gm/d Black cohosh 40-80 mg/d Black cohosh + St John's Wort 300 3x/d may be better when taken together (don't take if on antidepressant) Progesterone cream Progesterone capsules (really help sleep)

2. Low testosterone

- a. Diet: cut out sugar (sugar causes increase in insulin which decreases testosterone) - low glycemic index foods <55, Cut out saturated fat (pizza, dairy, processed meat), Increase protein, Increase healthy fat

b. Weight loss: decreases the enzyme aromatase which turns testosterone to estrogen in fat cells, so less testosterone turned into estrogen

c. Address stress: your body will always choose to make stress hormones over sex hormones, manage stress and your body will choose to make testosterone

c. Other: increase sleep

d. Supplements/vitamins (take lowest effective dose):

i. Ashwaganda 400-500/d (can help adrenals increase production of T)

ii. Maca 1000-2000mg/d (increases usable testosterone)

iii. DHEA (precursor to T) 2-5 mg daily

iv. Vitamin C 1000/d

v. Vitamin D3 2000/d

vi. Zinc - blocks aromatase (for every 30 mg of Zinc need 2mg of copper)

vii. Vitamin B complex

3. Progesterone deficiency (imbalance with too much estrogen)- see PMS handout

a. Supplements/vitamins:

i. Chaste berry: 500-1000/d

ii. Calcium 600mg 2x/d

iii. Magnesium 400-800mg nightly

iv. B Complex with Vitamin B6 100/d

v. Progesterone cream

Supplements: Our bodies are well oiled machines when working well, our bodily functions only need a specific amount of vitamins to work well so MORE ISN'T BETTER. Our bodies tolerate supplements in specific amounts as well therefore use lowest dose that is effective.

Supplements aren't FDA regulated which means, they don't have to include what they write on the bottle!!! Several companies that I feel comfortable with: Pure Encapsulations, Integrative Therapeutics, Thorne)

Look for the USP symbol: **USP** independently evaluates supplements for quality, purity and potency