

Dr. Berkson's
5 UNIQUE
Tips for Tending Your Hormones



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5 UNIQUE Tips For Tending Your Hormones©

By

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Hormones act like your “Physiologic Internet System.” They do this by sending signals—which can be thought of as “emails” —to *receptors*. These receptors are proteins in the shape of satellite dishes. They lay in wait to receive the signals, or emails from hormones.

Once the receptor successfully receives these emails, marching orders are given to cells to tell your body how to keep you well.

You have unique receptors throughout most of your body for the sex steroid hormones—estrogen, progesterone, and testosterone—and even for your love hormone, oxytocin. Emails are sent and received by these hormone’s receptors. The receptor then send orders to your genes, which then send orders to cells in your brain, throughout your gut, in your central nervous system, your eyes, kidneys, vocal chords, lungs, your microbiome, and on and on.

As you can see, hormone emails rule your physiology’s mojo.

Hormones are not just about sexy or reproductive things. Their signals oversee much of what goes on in your body.

That’s why you feel awful when your hormonal emails are disrupted and less marching orders are sent. You feel older, fatter, stupider, and suddenly your risk of diverse diseases increases.

What causes hormone emails to wan or to freeze?

- *Aging*. As you age, your body typically produces less hormones. Thus, your receptors receive less emails. Also, just as YOU age, so do your receptors. Aging receptors do a less successful job of deciphering and transcribing emails.

- *Toxins*: Receptors can become “clogged” with toxins (hormone-altering chemicals from pesticides, foods microwaved in plastic containers, foods cooked in non-stick cook ware, food served in plastic washed in harsh dishwasher detergent, personal care products, etc.). Clogged receptors (called “competitive inhibition”) don’t do a good job at receiving emails from your hormones or may process these emails abnormally.
- *Stress*: Receptors can become “clogged” by excess amounts of the stress hormone *cortisol*. Stress occurs when you perceive yourself to be in on-going situations where you have a sense of “having no control” to get yourself out of the events causing the distress.
- *Food*: When you make poor food choices or don’t adequately digest the food you consume, you become nutrient deficient. “Receptor Functionality” —the ability of your receptors to receive the emails that hormones long to deliver—requires robust local levels of vitamins and minerals.
- *Disease*: You have a disease state that alters your hormonal email or makes receptors less able to receive the emails.

Where your the rubber meets the road for hormones, is at the receptor level.

Receptors must be able to receive hormonal emails. *Receptor functionality*, as this is called, is even more critical than your levels of hormones in your blood, saliva or urine. Why? You can have great levels of hormones, but if they can’t deliver their emails, your body, like a computer, can start to “freeze.” Your Internet system fails you.

So you see, issues with “receptor functionality” diminish your hormone health. There are no clinical tests at this time to assess hormone receptor functionality, so a lot depends on how you *feel*.

That's why functional practitioners remind us to respect and treat the patient more than the laboratory.

How you feel is the best indicator of how your receptors are working.

Failing or faltering receptor functionality is caused by all the above factors just mentioned in the bulleted list.

To help you keep your hormones healthier, I have put together this eBook guide on how to tend your hormones. This is not the whole story. But these tips certainly help keep your hormones, and thus you, safer.

Tip 1. Avoid sugar and sugar-producing foods.

Hormones are two-faced: they can act “good” or “bad” depending on what you eat. Russian researchers, whom I wrote about in *Safe Hormones Smart Women*, showed that consuming excess refined sugars or by eating foods and beverages that easily get broken down into sugars (such as alcoholic drinks, fruit juice, white pasta, white rice, white bread, white potatoes, and many gluten-free products that do not have adequate fiber, etc.) all nudge your estrogen into nastier behavior. What is this nasty behavior? Growth out of control—the hallmark of cancer. So eating excessive sugary foods puts your estrogen into a state that makes you more at risk of a primary or recurrent cancer.

Here is the rub. It's a two-way street:

Estrogen is a hormone that helps our bodies maintain healthier blood sugar levels and metabolism. Not a lot of doctor's realize this, but it is a major function of this female hormone.

Yet excessive dietary sugar intake damages this built-in natural estrogenic sugar/insulin protection.

Eating too much sugar is bad in and of itself. Cancer cells love sugar and proliferate more when they consume it. But excess sugar also damages nature's estrogenic sugar protection, and this puts your

tissues at heightened risk of excess sugar, disinsulinism (your cells stop “listening: to insulin) and cancer cell growth.

Most of us hear the term estrogen and think of it in relation to our menstrual cycle, breast health or feeling randy. But estrogen wears a lot of hats. Protecting our sugar/insulin metabolism pathways, or how we process sugar, is just one of the many non-reproductive actions of estrogen.

When women age and their estrogen email wane, they are at more risk of developing insulin resistance or trype-2 diabetes. Less estrogen means less protection over the way our bodies handle sugars. By the way, testosterone matters too. It keeps our muscle mass healthy. With less T, and less exercise, we have less muscle, and this contributes to more insulin resistance, too. So low E and low T and low exercise make us more prone to a wide variety of diseases, including cancer, that spins off of insulin resistance over time.

Estrogen has numerous job descriptions. Estrogen also limits how many fat cells your body holds on your bellies and thighs. Sugar, once again, damages this estrogen protection. When you eat too much sugar, estrogen doesn't limit your fat mass as well. As a result you can gain a lot more weight, more than you feel is justified by how much food you eat or how many aerobic classes you endure.

Here are some more examples of how sugar makes estrogen nasty:

Bones: Estrogen normally protects bones. Excess sugar blocks estrogen from delivering protective signals to the estrogen receptors on and inside your bones. Your bones then thin. Thus, excess sugar in your diet predisposes you to bone loss, because sugar blocked estrogen's bone protective actions.

Brain: Estrogen is critically important in brain and mood health. Estrogen is so important for brain health, that estrogen is actually produced right inside your brain in six different areas. This means that nature intended for your brain to be continually

bathed in protective estrogen emails. But if you consume excess sugars, *insulin resistance* develops inside your brain tissue. Estrogen's protective brain signals get sabotaged. You start to experience brain fog, memory issues, less cognitive brightness, and a heightened risk of dementias (like Alzheimer's disease).

Pregnancy: If a woman is pregnant and consumes excessive amounts of sugar, even the fruit sugar *fructose*, this can damage the protective action of estrogen in her offspring as they grow up! So estrogen's damaged protective mechanisms are *inheritable*. Excess sugar consumption during pregnancy can pass estrogen issues on to future generations! This puts the child at increased risk of a variety of ills from allergies to diabetes.

Diet: Excess consumption of unhealthy fats (hydrogenated, processed, fried, etc.) added to excess sugars in your diet, make the estrogen outcomes even worse.

Waist & hips: Estrogen, when acting in a good way, rules how many fat cells we have. If we consume excess sugars, the fat protective actions of estrogen work less well, and the pounds start adding on.

The power of food: It's very obvious that the foods you choose to eat on a regular basis influence how well-behaved your estrogens act. Or not!

What to do? Use stevia, which is a healthy natural alternative and is cardio-metabolically protective. Avoid the processed forms with lots of additives like maltodextrin. Avoid artificial sweeteners, which damage your precious microbiome. This then has negative effects on your hormones as there is a supposed to be a healthy "cross-talk" between your gut critters and your hormones.

What to do? Avoid refined and excess carbohydrates. Avoid fruit juices and sugary colas. Use stevia. Avoid artificial sweeteners.

A touch of maple syrup or raw local honey is okay, but too much is not good for your hormones either.

Tip 2. Eat foods to keep your estrogen receptors balanced to protect you against cancer.

A hormone sends a signal to a receptor. Estrogen is the oldest hormone on the planet, so it's more complex and has more receptors than any other hormone. When different estrogen receptors are sent emails, different actions occur. Each action can be referred to as a job description. Estrogen has more job descriptions than other hormones. She has more receptors and when each receptor is signaled by estrogens, different marching orders and actions occur.

The first two estrogen receptors are the most well known and studied so far. (I got to work at Tulane at an estrogen think tank with the scientists who discovered both these receptors.) The first one is called by the first letter of the Greek alphabet, *alpha*. So its name is estrogen receptor alpha, or ER alpha for short. The second receptor is named with the second letter in the Greek alphabet, so it's called estrogen receptor *beta*, or ER beta for short. There are other estrogen receptors, like ER delta, ER gamma, and ER X, and more are being discovered all the time. But the first two are the best understood at this time.

The first one, ER alpha, was discovered in the mid 1950's and the second, ER beta, in the mid to latter 1990's. So we don't know everything about estrogen. It's a process of exploration on how estrogen works and it's ever evolving. No one knows all the answers. These two major estrogen receptors, when signaled, have different actions that balance each other out. Thus, the ratios of these receptors are said to protect us against disease. Especially cancer. Especially in your breasts.

- ER alpha sends “growth” signals.
- ER beta sends “controlled growth” signals.

ER beta is the *cancer-protective* estrogen receptor that sends cancer-protective emails.

You want to have this “good estrogen dominance” sending healthy signals to your estrogen beta receptors. This protects your breast from breast cancer in the first place or recurrence in the second place.

The bad “estrogen dominance” is when your estrogen signals excessive growth, the hall-mark of cancer. But the good “estrogen dominance” is when you have well-controlled growth, which protects you against cancer. .

Healthy estrogen receptor beta signals protect against many cancers such as lung, colon, and others. Realize that there is a good estrogen dominance, not just a bad one. Please get this straight. There is a lot of misunderstanding surrounding the diverse and potentially protective actions of some estrogen signals. Even among oncologists.

So how do we get healthy ER beta signals to keep our breasts healthy?

A good way to protect your breast by protecting your ER beta signals is through foods and herbs. Here are some foods that have compounds, which love to turn “on” ER beta, the good estrogen dominance that protects your breasts.

Non-GMO and organic:

- Soy
- milk thistle
- black forbidden rice
- rhubarb extract
- pomegranate.

Pomegranates are a breast protective powerhouse! Pomegranates contain an omega-5 fatty acid, called punicic acid. This tamps down the growth signals of ER alpha and boosts the protective signals of ER beta. So much so that pomegranate has been called a *food estrogen modulator*. It's been shown to cause ER+ and even ER- breast cancer cells to "die." So much so, breast oils are now being made with pomegranate concentrate in them as another tool to keep your breast tissue healthy.

- Pomegranate is so breast protective it has been shown to protect rodents from developing mammary tumors (that's what breast cancer is called in mice) almost 100 percent of the time when exposed to a chemical that induces these tumors (DMBA). But if these mice are pre-treated with pomegranate, the tumors don't grow.
- How does pomegranate protect against breast cancer? Pomegranate blocks growth-out-of-control (remember, this is the hallmark of cancer), stops nourishment and blood flow (angiogenesis) to tumors, reduces inflammation, and acts a bit like a "food tamoxifen."
- Pomegranate also acts as a powerful "natural aromatase inhibitor."
- Pomegranate has been referred to by some scientists as a *Food SERM* (selective estrogen receptor modulator).
- Pomegranate down-regulates (turns off) ER alpha that promotes growth and up-regulates (turns on) ER beta that protects against cancer. But many pomegranate juices have added sugars, so if you take pomegranate use the non-sugared concentrate, or supplements made of extracts, or whole food. The only contraindication for whole pomegranates is people with esophageal disease, as the seeds can be irritating to this "food tube"—the esophagus—that connects your mouth to your stomach.

- Blue foods contain anthocyanins, which help eradicate cancer stem cells. Try to eat a blue food at least once a day.
- Blue food examples are: red cabbage, black rice, purple carrots, black lentils cooked and/or sprouted, blue cauliflower, egg plant skin, radicchio, berries, ling cod, purple potatoes. Blue king crab, bluefish, blue corn chips, blue tea (bluepi magic tea add several drops of lemonade to make the color blue).

Tip 3. Avoid excessive sitting

Sitting too much is bad for your hormones. Thus too much sitting is bad for your breasts.

The Women's Health Initiative, launched by 40 prestigious institutions and the National Institutes of Health, was created to study how to keep women healthy as they age. It was a massive collection of research looking at women every which way to figure out how we get ill and how to keep us well. One study was called the *Women's Healthy Initiative Observational Study*. This study looked at different health habits of women to see which ones were health promoting and which ones put women more at risk of serious illnesses like breast cancer.

This study looked at sitting and exercise.

There were 1804 postmenopausal women in this study. They were tested for their parent estrogens (estradiol and estrone) and their metabolites (breakdown products, all of which have various estrogenic actions), their duration of sitting and exercise, and whether the exercise was mild, moderate, or robust.

They found that the more women sat, the less healthy their estrogens were!

The more women sat and the less robustly they exercised, estrogens became metabolized into patterns that put women at severe risk of breast cancer.

Sitting over 5 and over 10 hours a day nudged estrogens into acting nastier and increasing the risk of hormonally-driven cancers.

The more you sat, the higher your estrogen levels of estrone and estradiol (and their pro-cancer metabolites), the key hormones in female cancers, especially in postmenopausal women.

The worst recipe was: Prolonged sitting + lower level exercise. This put women at high risk of developing estrogen-driven cancers.

So what to do if you have to sit a lot?

Have better sitting hygiene. Get up and down. Even if you just stand up in place, once you recruit your quads, you break this nasty effect of sitting on estrogens. Getting up every half hour is ideal. You could also stand up every 5 to 10 minutes, or partially stand up, or tighten your quads, or just move your legs. Ideally, be in a swivel or rocking or moving chair or a standing desk that you can move up and down.

The bottom line: *movement protects your estrogens and too much sitting assaults them.*

In space, astronauts age rapidly. They lose bone. Their mitochondria (energy factories) wilt, and their hormones wan. This is because gravity helps promote better health.

Sustained sitting is like losing the protective force of gravity. It's similar to being up in space.

Move it or lose it is a true mantra you should use to remind yourself how much verticality and smarter sitting protect your estrogens, and thus, your breasts.

Tip. 4. Keep your gut healthy. This is a major part of keeping your estrogens healthy.

The gut has a huge influence over the health of your estrogens. So much so, that sometimes the gut is also referred to as the *estrobolome*. This demonstrates that the gut environment oversees estrogen activity and balance.

You make estrogen inside your body and then you need to get rid of it. So you make it and let it go. If you don't get rid of it adequately, estrogens accumulate and start to act nastier. Your gut has a lot to do with keeping your estrogen flowing through you and not accumulating.

Moving estrogen through you is ruled by *transit time* (bowel habits) and by the health of your microbiome. Transit time is how long it takes for fecal material to go through you. Prolonged transit time makes your estrogens nastier.

This means that constipation is bad for estrogens.

*** In contrast, pooping twice a day is ideal as this moves estrogens healthfully through your body and out into your city's treatment system.

*** Your goal should be to have two healthy bowel movements most of the time. This helps keep your estrogen acting healthier, not more dangerously.

When you don't poop often enough, estrogen can get recycled back into your body and accumulate. Excess estrogen is a recipe for estrogens that promote growth-out-of-control.

Your microbiome affects estrogen, too.

Your microbiome is the total of microbial life that lives in nooks and crannies all throughout your body. In this instance, we are referring to your large intestine—the colon.

The gut microbiota—the teeming life made up of bacteria, viruses, and fungi—is a major regulator of your estrogens.

To keep estrogen healthy, your microbiome should be diverse. A healthy and diverse microbiome allows for sufficient amounts of an enzyme—called β -glucuronidase—that lives inside healthy fecal material. It liberates estrogens and makes them available to be released into your stools and rinsed out of your body.

Dysbiosis (more bad than good bacteria, fungi or viruses) in an unhealthy gut does the opposite. Dysbiosis reverses this protective effect of your microbiome on your estrogens. Dysbiosis promotes estrogen accumulation, and estrogen alpha out of control, or the bad estrogen dominance. Thus, dysbiosis puts you at increased risk of cancer or recurrence of cancer.

Dysbiosis and poor release of estrogens from your body, also increase your risk of other diseases, such as obesity, polycystic ovarian syndrome, fertility issues, endometriosis, heart disease, and even dementia.

Women with more diverse microbiomes have healthier estrogen metabolism, and thus less risk of cancer or cancer recurrence.

The old saying, “The bigger the poop, the smaller the hospital,” certainly applies to breast health.

Best ways to keep your estrobolome healthy:

- Eat a diverse diet. The wider your food choices the more diverse your microbiome. The more diverse your microbiome, the healthier it is, and the healthier your estrogens are.
- Avoid antibiotics and excess sugars, all of which damage the microbiome.
- Avoid hormone-altering chemicals that also damage the microbiome. For example, don't microwave food in plastic, avoid food in cans, take your shoes off at the front door, eat organic, don't use non-stick cook ware even though it makes washing the pan easier, don't wash plastic in the dishwasher and then reuse for beverages or food, and avoid pesticides when possible.
- Poop twice a day. If you don't consume more fiber, like a carrot a day, add fruit, more water, more greens, add magnesium, or try digestive supportive players like pancreatic enzymes.

Tip 5. Estrogens wear a lot of hats; they prevent leaky gut and leaky brain, keep your cognition bright, protect your mitochondria (energy factories) and even make your hard earned habits more effective, wow!

Estrogens are protective, especially in your brain. So much so that estrogen is produced in six different areas to protect local tissues in a young healthy brain.

Estrogens also protect the gut. There are ER alpha and ER beta receptors throughout the entire digestive tract. And all throughout your brain tissue.

Estrogen emails particularly protect the gut wall barrier and the blood brain barrier.

In this way, estrogens help prevent (and sometimes treat) leaky gut. As well as preventing leaky brain. Estrogens also promote the passage of healthy brain protective nutrients across the brain barrier, like taurine and essential omega fatty acids.

This just goes to show that there is much more to estrogen than meets the eyes. Most commonly, estrogens are associated with sexuality and reproduction or playing havoc with breast health. But estrogens have an ever-growing job description list.

A few examples:

- Estrogens protect your mitochondria (the powerhouses of your cells).
- Estrogens boost epigenetics (the biological mechanisms that turn genes on and off)—how you get benefits inside your body by your healthy habits.
- Estrogens protect your kidneys. Healthier kidneys protect your heart. I used to work with the kidney doctor that invented the home dialysis (CAPD) unit, his name is Jack Moncrief MD. Jack would always say to me, heart health starts in the kidneys.
- Estrogen protects your heart valves. Since estrogen is so critical for heart valve health, estrogens are produced directly

inside the heart. Estrogen also protects your basic heart cells (cardiomyocytes) and the stability of the beat of your heart.

- Estrogens allow methylation (a DNA process) to unfold. This is recent research not known by even many doctors. We talk a lot about snips or methylation issues due to genetic glitches. But keeping your estrogens healthy is a major part of keeping methylation healthy, right up there with taking methylated or “activate” B nutrients!

Want to dive deeper? Take my [Everything About the NEW Estrogen](#) course. You will adore this. Consider the [2 MEO - Nature's Wonder Child](#) course as this protects against breast cancer like crazy and can be boosted by foods and/or replacement, but again, is not known by most doctors. 2 MEO is a script that helped stop by personal cancer madness.

Estrogens do a lot for us. So we don't want to throw the estrogen baby out with the estrogenic bath water.

But what if you are a high-risk woman?

This means someone with a history of a hormonally driven cancer (such as breast, ovarian or uterine), or a woman with high-risk genes, or a woman with many first-degree relatives with hormonally driven cancers? What options are there to keep your estrogen signals healthy going without risking your safety?

Here are a few ideas, though you might read more in-depth on this in my book [Safe Hormones, Smart Women](#) where I have an entire chapter on estrogen replacement and high-risk women such as breast cancer survivors.

1. You can discuss with your oncologist the option of taking testosterone replacement while on tamoxifen for an aromatase inhibitor, as T will also protect your brain. But while on these meds, the T should NOT morph into estrogens.

2. If you can't do this, you can consume soy, flaxseed, and sesame seeds. These foods are associated with delivering signals in a protective manner to estrogen receptors that keep your brain healthy, and the gut and brain tight barrier junctions protecting you better. They are protective against breast cancer. Even though they are mildly estrogenic, they signal the anti-cancer estrogen receptor beta, so their estrogen emails are cancer protective.
3. Many oncologists do not realize that the estrogen signals are protective and they warn breast cancer patients to avoid soy. But that is not what the literature says. But do avoid processed soy, soy isoflavones and hydrolyzed soy protein. The estrogen healthiest soy is organic, non-GMO, fermented if possible, and as a whole food such as tofu, miso, edamame, edamame pasta or edamame hummus ..

These foods also promote healthy metabolism of estrogens into the final cancer protective metabolite called 2-methoxyestradiol. This greatly protects your from cancer recurrence.

If you don't understand the soy conundrum, (the science clearly shows that soy is protective against primary cancers and recurrences) you can read my chapter on it in [Safe Hormones Smart Women](#), called "To Soy Or Not To Soy," where I share all the data in an easy-to-understand manner.

4. You can ask your doctor if you are a candidate for replacement with the healthy estrogen called *estriol* that mainly signals ER beta, the anti-cancer estrogen receptor. Some women are candidates and others are not.
5. You can ask your doctor if you are a candidate for *progesterone* therapy that opposes or protects estrogen's growth out of control signals. Some women can take this, others cannot.

6. You can ask your doctor if they know about *oxytocin* and how it protects estrogen. Not many doctors know about this at the moment, but I am traveling the country training MDs and pharmacists to try to spread the word. Oxytocin cream is especially helpful to treat dry and painful vaginal vaults and make lovemaking more enjoyable without any estrogen signals involved in this marvelous process.
7. You can take resveratrol supplementation as it has been shown to have estrogen-like protective actions in the brain, without increasing risky activity of estrogens. It also prevents *cancer-forming estrogen-adducts* that come from aberrant estrogen metabolism.

Remember that song, there are 100 ways to leave your lover? Well, you have just learned not quite 100 ways to protect your estrogens. Your estrogens are tissue lovers you don't want to leave. But you need to keep safe.

If you want to dive deeper into my work with estrogens, I offer a variety of [courses](#) for both patients and providers.

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