

AVOIDING XENOESTROGENS



A quick-guide to navigating
our toxic environment and
reclaiming our vitality.

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Welcome to our quick-guide to navigating our toxic environment and reclaiming our vitality. In this guide, we are going to discuss environmental estrogens, the impact that they have on our health, and where we most commonly encounter these xenoestrogens in our environment.

With hormones being chemical messengers that control most major bodily functions including metabolism, hunger, sleep, sex drive, and much more, it's vital for our health that our hormones are functioning optimally. Seeing as they are chemical messengers, if our hormones are out of balance, the wrong (less than ideal) message will be communicated in our body and we will suffer negative health consequences as a result.

In this guide, we will focus on one hormone in particular, estrogen. Estrogen is the main sex hormone in women and plays a major role in bone health, brain health, and preparing the uterus for pregnancy. While women have far more estrogen than men, men also require adequate amounts of estrogen to maintain optimal health.

While estrogen is vital for human health, too much estrogen in our system can contribute to various health conditions including obesity, certain types of cancer, PCOS, chronic fatigue, and decreased sex drive just to name a few. Hundreds of chemicals that we are exposed to on a daily basis have the ability to increase estrogen in our bodies, throwing off the delicate balance of estrogen, progesterone, and testosterone. These chemicals are known as xenoestrogens. Xeno means "from the outside" or "foreign", indicating that these xenoestrogens are estrogens that we encounter from the outside world, not the estrogen that our body produces naturally. If we can minimize our exposure to environmental estrogens, we will likely be able to avoid becoming estrogen dominant and encountering the negative health consequences that come along with it.

In this quick-guide, we will share with you 5 tips for staying off estrogen dominance by raising awareness on some of the most commonly encountered environmental estrogens.

For an extended discussion on environmental estrogens, [check out our podcast episode](#) where we analyze research on xenoestrogens and their impact on human health.

Be sure to [follow us on Instagram](#) and [Facebook](#) to keep up with all of our free content including interviews with the top experts in the health field, information-packed podcast episodes, and free supplement giveaways!

**AVOID
PARABENS &
PHTHLATES**

1

Commonly found in conventional
cosmetic products, air fresheners,
and lotions

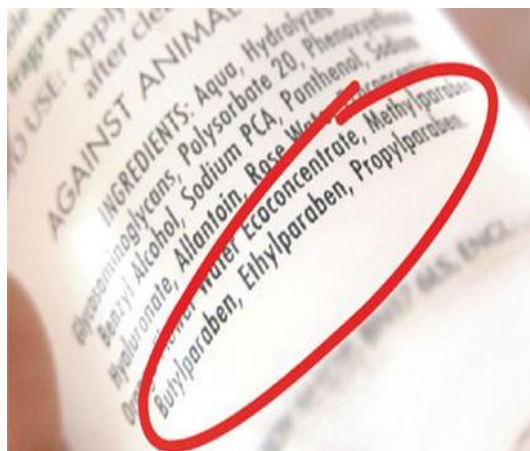
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One of the most common places that we encounter xenoestrogens is in our cosmetic products. According to the *Environmental Working Group*, women walk out of the house each morning with nearly 180 different chemicals on their skin.

Have you ever turned around your bottle of body lotion and actually read the ingredients?

Chances are you will not be able to pronounce at least half of the nearly 20 ingredients in most conventional cosmetic products. Some of these chemicals including parabens and phthalates have the ability to act on your estrogen receptors, potentially contributing to excess estrogen accumulation in the body. Chemicals such as parabens and phthalates are structurally similar to estrogen, causing our estrogen receptors to uptake them and utilize them as if they are the *real estrogen*.

Fun Fact: There are three naturally occurring forms of estrogen in humans: **estrone (E1)**, **estradiol (E2)**, and **estriol (E3)** and a fourth type of estrogen called **estetrol (E4)** which is only produced by pregnant women.



Purchasing high-quality, xenoestrogen-free cosmetic products is an important, but confusing task. Many companies disguise these estrogenic compounds under different names. For example, often times parabens will have prefixes such as ethyl, "butyl," "methyl," and "propyl" preceding them on cosmetic labels. Parabens can be difficult to spot on labels because some chemicals that are part of the paraben family don't have the word paraben at all in their names.

Phthalates, on the other hand, are slightly easier to recognize on product labels. Generally, phthalates and their family of compound tend to contain the word phthalate in their names. For example, a phthalate compound may be referred to as diethyl phthalate. There is one exception to this rule, however. Seeing "fragrance" or "parfum" could indicate that there are phthalates contained in the product.

For a more in depth discussion on the negative health effects of parabens and phthalates as well as a list of paraben/phthalate-free brands, check [out this article](#) that we wrote on our website.

Main takeaway: READ YOUR LABELS. Avoid parabens, phthalates, fragrances, and perfumes in your lotion, shampoo, conditioner, makeup, and all other cosmetic products.

**AVOID
CONVENTIONAL
PRODUCE & MEAT**

2

Many pesticides are function
as xenoestrogens

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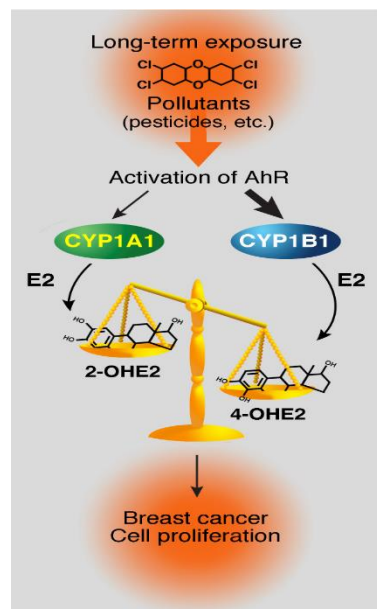
Perhaps one of the most debated topics in the health community is whether or not buying organic foods instead of conventionally grown/raised food products is truly beneficial for your health.

The answer is both yes and no.

While organic foods don't necessarily contain higher amounts of vitamins, minerals, and phytonutrients, they do generally contain fewer amounts of harmful pesticides. Pesticides, like parabens and phthalates, have the ability to act on estrogen receptors, potentially causing excess estrogen accumulation.

One example of a pesticide that has been clinically shown to act as a xenoestrogen and increase cancer risk is DDT. While DDT was banned for use in 1972, it is still showing up in our food supply in frightening quantities. At one time, DDT was regarded by the U.S government as "safe".

But what other "safe" pesticides are being used in our food products currently?



Research shows that different types of pesticides may increase the risk for breast cancer. Scientists theorize that this increased risk for breast cancer may be due to the fact that nearly 80% of breast cancers are estrogen-receptor-positive, indicating that the tumors have estrogen receptors on them and may grow/proliferate when exposed to estrogen. Since some pesticides function as xenoestrogens, they can potentially act as a source of "fuel" for estrogen-receptor-positive cancers to thrive.

Minimizing our exposure to pesticides as well as other estrogenic environmental compounds may be a powerful preventative approach to estrogen related cancers and various other estrogen related conditions.

While buying organic foods isn't a surefire way to eliminate pesticides in your food, it is an effective way to lower your xenoestrogen intake. The higher price point of organic meat and vegetables is a deterrent for many people, steering them away from buying organic foods.

If you are one of these people, check out the [2018 "dirty dozen"](#) list of the 12 fruits and vegetables that are most contaminated with pesticides and do your best to at least avoid those 12 foods.

Main takeaway: Buy organic meat and product when possible to minimize xenoestrogen exposure.

**AVOID
EXCESS ALCOHOL
INTAKE**

3

It's not worth it!

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With contradictory information about alcohol consumption circulating on mainstream media platforms, most people don't know what to believe anymore. Some headlines label all alcohol as "poison" while other articles claim that nightly wine consumption lowers your risk for cardiovascular disease.

What is the truth?

According to research published in the *Women's Health* journal, "alcohol may be involved in breast tumor initiation and promotion through increasing sex hormone levels, enhancing breast epithelial cell responsiveness to sex hormones". In other words, alcohol functions as a xenoestrogen of sorts raising your estrogen levels and contributing to estrogen dominance and all of its related conditions.



Another study published in the *Asian Pacific Journal of Cancer Prevention* examined 39,472 women and found that regular consumers of alcohol had a 60% increased risk of developing breast cancer.

It should be noted that many of the negative health effects of alcohol consumption are dose dependant. In other words, the more you drink, the higher your risk for developing estrogen-dominance-related illnesses.

Contrarily, some research shows that consuming small amounts of alcohol on a daily basis can increase the functioning of your glymphatic system. The glymphatic system is our brain's major detoxifying system that was just recently discovered in 2012. Since the glymphatic system was recently discovered, it is poorly understood and we should not use this research as an excuse to increase our alcohol consumption.

The truth is, if you are concerned about your estrogen levels, you should do your best to limit alcohol intake. In reality, if you are limiting environmental estrogen exposure in all other areas of your life, you will likely be able to "get away with" a small amount of alcohol consumption without it causing major health issues or causing estrogen dominance.

At Primal Example, we urge you to drink responsibly. If you are struggling with alcohol addiction and seeking help, [here are some resources](#) for you. If you are interested in learning more about the beneficial effect of alcohol consumption on the glymphatic system, [check out this podcast episode](#) we recorded on the topic.

Main takeaway: Any amount of alcohol intake is likely unhealthy overall. Alcohol can increase estrogen in the body and should be avoided if your goal is to avoid becoming estrogen dominant.

**AVOID PLASTIC
WATER BOTTLES**

4

Stop drinking estrogen tea

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Have you ever left your water bottle in the car on a summer day while you went to do some shopping only to return and take a sip, noticing a nasty plastic taste?

Congratulations, you just drank some estrogen tea.

Plastic water bottles (as well as other plastic products such as food take-out containers) contains a chemical known as bisphenol A or BPA. These plastic water bottles are photodegradable, meaning that they break down under exposure to extreme heat or light. When the plastic water bottles break down, the various chemicals, including BPA, leach into the water and contaminate it.

BPA, like parabens, phthalates, and pesticides, functions as a xenoestrogen and can contribute to estrogen dominance. The Canadian government declared BPA a “dangerous substance” and is investigating banning it claiming that it “satisfied their criteria” to be considered for banning

Similarly to the other xenoestrogens mentioned in this guide, research shows that BPA may possibly play a role in the development of hormone related cancer such as breast cancer. What’s more concerning is that BPA was present in 95% of urine samples taken in the U.S. Additionally, researchers found that BPA was present in high concentrations in the urine of babies, indicating that BPA may be transferred from mother to child during breastfeeding.

This is frightening when you take into account recent research that revealed low level exposure in pregnant mice contributes to spontaneous miscarriages and birth defects. Researchers theorize that most of the harmful effects of BPA exposure lie in its estrogenic properties, throwing off the delicate balance of our hormones.



While many companies have developed BPA free water bottles, the verdict is still out on whether or not these water bottles are any safer or less estrogenic. The best way to assure that you are getting high-quality, non-estrogenic water bottles is to purchase glass water bottles. Our favorite brand is *Mountain Valley Spring Water* and it can be found at most Whole Foods Market locations.

Making the switch from plastic water bottles to glass water bottles can pay major dividends for your health, aiding in the prevention of estrogen dominance and many of the negative estrogen related health conditions mentioned in this guide.

Main takeaway: Make the switch from plastic to glass. It may seem like a small change that won’t have much of an effect on your health, but it will have great impact in the long-run.

**AVOID
CHRONIC CARDIO**

5

**You don't enjoy the
treadmill anyway**

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In short, the more fat cells you have in your body, the more estrogen you will likely have. Thus, if we are trying to avoid becoming estrogen dominant, we should prioritize lowering our body fat percentage and losing excess fat. For many years, it was thought that the most effective type of exercise for weight loss was cardiovascular exercise, such as jogging. Modern research shows that may not be the case.



In fact, partaking in excess cardiovascular exercise, aka chronic cardio, may actually exacerbate your condition and eventually INCREASE estrogen. This is because overstaying your welcome on the treadmill can increase stress hormones, mainly cortisol, potentially lowering testosterone and creating a bigger imbalance of estrogen to testosterone. *The European Journal of Applied Physiology* concluded that there is a link between the low resting testosterone found in endurance-trained runners and cortisol.

Sounds bad, right?



stored.

A more effective way to lose body fat while also balancing your hormones is to lift heavy weights several times per week. Ladies, this goes for you too! When we lift heavy weights, it stimulates the increase of anabolic hormones such as testosterone and growth hormone. Furthermore, muscle is our bodies fat burning machinery, so putting on some muscle mass can help our bodies burn more fat and release some of the excess estrogen that we have

To be clear, cardio exercise is not inherently bad for your health. There are several benefits of cardio excess including boosting cognitive function and increasing lung capacity. However, it's important that we do not look at it as the golden ticket to weight loss. If you truly enjoy long distance, go for it. But don't think that jogging on the treadmill for 6 hours per week is the best way to nurture your hormones; it's not. If you wish to continue doing cardiovascular exercise, simply substitute 1 or 2 days of cardio in the gym for lifting heavy weights. You will notice tremendous benefits not only for your hormones but also for your body composition.

Main takeaway: If you enjoy cardio, do it. If you don't, don't worry; it's not the most effective form of exercise for weight loss or decreasing your risk for estrogen dominance anyway.

BRINGING IT FULL CIRCLE

sending virtual hug



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We hope you enjoyed our
quick-guide!

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Thank you for downloading our quick-guide. We hope that this guide aids you on your journey to avoid environmental estrogens and balance your hormones. The topic of environmental estrogens is extremely complex. This guide is meant to serve solely as educational material. You should not use this guide to diagnose or treat a medical condition. Always be sure to consult with your doctor before making any drastic lifestyle changes.

If you found value in this free guide, consider subscribing to our FREE, top-rated health podcast [HERE on iTunes](#) or [HERE on Spotify](#).

Our podcast has featured some of the world's leading health experts including Shawn Stevenson, Mark Sisson, Dr. Stephen Cabral, Luis Villasenor, Dr. Trevor Cates, and more.

If you would like to get into contact with the Primal Example team for guidance on your health journey, [contact us on Instagram HERE](#).