

CLEANSE YOUR HOME

A step-by-step guide to prepare for a healthy pregnancy by removing 5 of the most harmful chemicals in your home



IN THIS GUIDE

HOW TOXINS IMPACT FERTILITY

THE 5 MOST HARMFUL TOXINS

HOW TO REDUCE YOUR EXPOSURE

Environmental Toxins & Fertility

The number of chemicals in our environment today is astronomically greater than it was 50 years ago. Research correlates many chemicals in circulation to chronic health conditions, including infertility. Additionally, there are over 80,000 more chemicals, of which only 2% have been tested. Of the chemicals we have identified to impact fertility, the majority exist in products found in our home or the environment we live in daily. This guide is intended to educate and empower you with small, yet effective steps to reducing exposures **for both partners** before conception.

The cellular requirements for a healthy pregnancy are immense. Many environmental toxins interrupt normal body processes required for hormone regulation, detoxification, absorption of nutrients and overall cellular function. *Now* is the time to be aware of how these are impacting your body because your health can directly dictate your baby(s) health. Reducing toxins in your home will only improve the environment for your future baby.



How Toxins Impact Fertility

Many chemicals we are exposed to have been shown to play a negative role on effective and healthy fertility. The term most often used to describe these particular chemical toxins is "**endocrine disruptor**".

The endocrine system is a family of organs including the **hypothalamus** and anterior **pituitary** in the brain, the **thyroid** and **parathyroid** glands in the neck, the **adrenal** glands that sit atop the kidneys, the **pancreas** in the upper left abdomen, and the **ovaries** and **testes** located in and below the pelvis.

Endocrine organs are responsible for secreting hormones that, quite frankly, keep us alive. Most of the hormones communicate via a feedback loop, meaning there are signals from receptors in the body that travel to the brain and tell the brain if there are enough hormones, or if there are too little. The intimate signaling system is wise and well calculated.

When it comes to optimizing health for fertility, identifying and reducing exposure to endocrine disruptors is a very effective way to improve hormone function and prevent complications with conception, pregnancy, labor, delivery and the health of baby.

We are sensitive to the fact that most women and couples face a notable amount of fear around conception, especially if either partner has weathered a miscarriage or other challenges with fertility. The information in this guide is ***not meant to induce fear***. On the contrary, we firmly believe that knowledge is power and the more you can become aware of how certain chemicals may be impacting your health, the better.

Be aware too, that there are 2 categories of endocrine disrupting chemicals: *persistent and non-persistent*. The first 2 chemicals in this guide are non-persistent, meaning evidence shows our bodies clear the chemicals in a timely manner. Persistent chemicals are often more of a concern to us as they are more likely to be stored in the body over a longer period of time. These have the potential to create more dis-ease and imbalance as our bodies aren't as equipped at detoxifying these chemicals.

"This guide is not meant to induce any fear but to empower you along your fertility journey."

1. Bisphenol A (BPA)

You have mostly likely heard of Bisphenol A (BPA). BPA has been extensively researched over the years for it's negative impact on our bodies, specifically it's role in altering the function of our hormones.

The BPA's impact on fertility is alarming. In females BPA looks so similar to estrogen that chronic exposure has been shown to diminish follicular function in women's ovaries. Estrogen is essential for ovulation AND building a healthy endometrium (uterine lining) to support implantation of a fetus. In males, higher concentrations of BPA in urine have been directly correlated with higher levels of immature sperm.

Stages of development that seem to be most impacted by BPA exposure are prenatal, infancy & early childhood. One study found 61% of women had detectable BPA in breast milk. Making changes **before** conception will lead to significantly improved health for pregnancy AND your future baby.

"The most critical times for BPA exposure are prenatally, infancy & early childhood."



Where is it found?

BPA is commonly found in plastics: food storage, plastic bags, water bottles, aluminum cans, store receipts, toys, styrofoam.

How to decrease exposure?

1. Cook meals at home, avoid take-out. Batch cook beans and soups rather than using canned.
2. Replace plastic food storage with glass or food grade stainless steel.
3. Replace plastic bags with reusable silicone.
4. Have your receipt emailed or say "no thank you".
5. Never heat food in plastic OR eat/drink warm food or beverages from plastic. This includes water bottles that are left in the car/heated.
6. Avoid cheese and yogurt stored in plastic.
7. Buy tomato sauce in glass jars.

BONUS TIP:

If a product is labeled "BPA FREE" it is likely made with BPA's brother or sister, BPS or BPF. These chemicals have been found to have nearly the same deleterious health impacts as BPA. Your new mantra is: glass or stainless.

3. Mercury

Mercury lands in the category of a persistent chemical. It can often be detected in air, blood, urine and soil.

In terms of reproductive health, mercury has been linked to impaired reproductive function, destruction of the Leydig cells (responsible for testosterone and LH production - necessary for sperm and ovulation), seminiferous tubules (site of sperm maturation and storage) and abnormal menstrual cycles. Women studied in areas with high levels of mercury had significantly higher rates of spontaneous abortion and pre-eclampsia.

Research has proven that perinatal exposure to high levels of mercury in the womb acts as a neurotoxin for the fetus. Mercury exposure has been linked to children with autistic spectrum disorder, IQ deficit, cardiovascular anomalies and low birth weight.

In the case that mercury doesn't impact fertilization, implantation or growth of a fetus, there is still risk of exposure in infancy. Mothers' breastmilk tested for contaminants showed alarming levels of mercury. In addition, newborns and fetus' show higher rates of mercury absorption through the gastrointestinal system and impaired filtering through the blood-brain-barrier and kidneys. Working to improve toxic burden of mercury **well before** pregnancy can improve the exposure to future baby.



Where is it found?

Dental work (fillings), fish.

How to decrease exposure?

1. Check out the Monterey Bay Aquarium's FishWise database, www.fishwise.org and consume seafood with the lowest rating for mercury.
2. Limit tuna and other higher mercury fish to once a week, or less.
3. Find a holistic dentist to remove mercury amalgams.
4. Work with a trained professional for testing and possible chelation therapy before desired pregnancy if you have known high level mercury exposure.

"Decreasing mercury exposure is essential to protecting reproductive potential."

4. Perfluorinated chemicals (PFCs)

Perfluorinated chemicals (PFCs) are another group of chemicals in the persistent category as they are stored in the body and can contribute to imbalances for many years.

One specific type of perfluorinated chemical is PFOA which has shown to have such deleterious health effects that it has been banned for decades and yet is still prevalent when testing humans and is expected to be present in our bodies for generations to come. It is estimated that 99% of humans have PFCs stored in their bodies.

Specific to fertility efforts, PFOA can directly lower sperm counts for males. It has been shown to correlate with lower birth weight, chronic kidney disease and thyroid disease.

Research done with animals has shown direct negative impact on quantity and quality of sex hormones and thyroid hormones showing a negative impact on endocrine health.

While the specific type of perfluorinated chemical, PFOA, has been banned for decades, other chemicals in the PFC category are alive and well and are certainly ones to avoid if pregnancy is on your horizon.



Where is it found?

Cooking pans treated to be "non-stick", stain and water resistant treatment for clothes, carpet, furniture.

How to decrease exposure?

1. Choose non-toxic cookware, such as:
 - a. Cast iron
 - b. Stainless steel
2. Purchase clothes that haven't been treated with stain or water resistant chemicals.
3. Refuse stain resistant treatment for carpets or furniture.
4. Use an air filter in your home to remove high levels of circulating chemicals from furniture.
5. Remove carpet from your home, if possible.
6. Purchase clothing that is GOTS-certified, made from organic cotton, free of chemicals. This is also 100% our recommendation when purchasing future baby clothes.

"Even though some PFCs have been banned for decades, it's estimated they will be detectable in humans for generations to come."

5. Organophosphate pesticides

We've certainly saved the best group for last here. Organophosphate pesticides were originally formulated in WWII by Nazi Germany for chemical warfare. Years later, American scientists formulated a nearly identical compound intended on paralyzing the nervous systems of insects.

Today, over 1 billion pounds of pesticides are used each year. It is estimated that 50 million people in the US are exposed to pesticides from drinking water. Exposure is **very prevalent** and the negative health implications are impossible to deny.

One type of organophosphate pesticide is glyphosate, an herbicide, made to kill weeds or other unwanted plants. Glyphosate is one of many chemicals found in Roundup and has been more directly researched in male fertility showing increased oxidative damage in sperm, decreased testosterone production and abnormal Sertoli cells (required for spermatogenesis).

Additionally, glyphosate has been directly linked to development of Celiac Disease and leaky gut as it inhibits the function of tight junctions including those in the small intestine. Celiac disease and leaky gut commonly cause impaired nutrient absorption and can lead to autoimmune diseases, reproductive issues, mental health symptoms and cancer.



Where is it found?

Nearly all non-organic foods, clothing, water. It's estimated that 70% of rainfall contains pesticides - so, basically everywhere.

How to decrease exposure?

1. Purchase and consume all organic foods.
2. Eat whole foods & avoid packaged foods
3. Clean out your spice cupboard and replace all cooking spices with organic. Spices often contain concentrated levels of pesticides.
4. Buy local produce from sustainable farms.
5. Wash all fruits and vegetables before eating, even if organic.
6. DO NOT use pesticides, herbicides or insecticides in your home or garden. Consider more sustainable options such as crop rotations, cover crops and plant based products.
7. Drink filtered water.
8. If you purchase vegetable juice from a juice bar, ensure it's made from organic fruits/vegetables.

Organophosphate pesticides, cont.

The important difference between non-GMO & certified organic.

Foods labeled non-GMO come from seeds not genetically modified. However, this means that they're likely heavily sprayed with pesticides. The best option is always organic, don't be lured into thinking the NON-GMO label is better. GMO certainly has it's own negative health implications, but in terms of avoiding pesticides NON GMO isn't necessarily better. Additionally, seeds that are GMO **are also often sprayed.**

Pesticide is a general term that encompasses hundreds of different chemicals. What we know about many of the different types of pesticides is that they impact the body as an **endocrine disruptor**. As you've learned from this guide, endocrine disruptors are considerably concerning for healthy ovulation, spermatogenesis, conception, pregnancy, fetal health and the overall health of future generations.



Dirty Dozen published by The Environmental Working Group

Ensure you buy these foods Certified Organic:

1. **Strawberries**
2. **Spinach**
3. **Kale**
4. **Nectarines**
5. **Apples**
6. **Grapes**
7. **Peaches**
8. **Cherries**
9. **Pears**
10. **Tomatoes**
11. **Celery**
12. **Potatoes**

- this guide is published in March each year

BONUS: READ THIS

After 8 pages of the hard truth with regard to the numerous impacts our environment has on our health, fertility and the health of future generations, we want to offer some encouraging words.

We aren't all doomed. This information isn't meant to paralyze you in your fertility efforts.

On the contrary, we want to **empower you and your partner**. There is **so much** we can do to improve our health status before conception. Each page offers a few lifestyle tips **that really make a positive impact**.

The next step is **supporting detoxification**. Many people we work with choose to test their toxin levels before trying to conceive. This lets us have a clear picture about what chemicals your body might be storing.

If testing is not something you're interested in for any host of reasons, we understand. We've compiled our favorite ways to improve mobilization and excretion of circulating or stored toxins in the body.

As always, be sure to check with your medical provider before starting something new.



How to boost detoxification:

1. Epsom salt baths: 2 cups unscented salts per bath.
2. Sweating via exercise or sauna 2-3 times a week.
** be mindful for males that temperatures over 105 degrees can diminish sperm production for 90 days. Avoid sauna or hot tub if desired conception is within this window.
3. Drink half your body weight in ounces of **filtered** water, daily.
4. Moderate exercise to improve blood flow and mobilization of toxins and excretion from stool, urine, sweat and breath.
5. Implement the detailed steps to eliminate toxins, as discussed on the pages above.
6. Since it takes 3 months to grow healthy egg and healthy sperm cells, allow your body a minimum of 3 months to clear chemicals before you begin conception efforts.

In summary:

1. Go through this guide, **1 week or month at a time**. Don't feel pressured to make big changes at once. Rather, consider working through your home, room by room to eliminate possibly harmful products that could be impacting fertility and/or fetal health.
2. We are all exposed to chemicals that can be harmful for our bodies. They're not going away. The biggest impacts we can have lie in **avoiding exposures** and **boosting detoxification**.
3. If pregnancy is in your near future, find a fertility specialist to work with to help you prepare for the healthiest pregnancy possible.



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