

What's the Dirt on Household Cleaners When Pregnant?

By Mark B. Roth, MotherToBaby New York

As a teratogen information specialist, I receive questions about all sorts of chemicals or substances someone can be exposed to. We often get questions about the bazillions of cleaning products out there. Bleach, powdered cleaners and spray cleaners, degreasers, oven cleaners, disinfectants – there are so many different cleaning products and looking at the ingredients list (if there even is one) can be overwhelming. All those unpronounceable words! Sodium hypochlorite, decamine oxide, sodium hydroxide, sulfonate, dipropylene glycol butoxy ether, etc., etc. etc.!!!

If you are reading this, it's probably because you want to decrease the chance of any problems for the baby while you are pregnant or breastfeeding. You might be looking for information about which cleaning products are okay to use or to be around while you are pregnant or nursing. I have been told so often by my callers how difficult it is to find reliable information. And that is true, even for the experts. There are a few challenges we all have to contend with.

One of the biggest challenges is that many chemicals simply have not been studied in pregnant women. Some ingredients found in cleaning products have been studied in pregnant animals, mainly mice and rats. When such substances are given to animals, the amount (or the dose) they are given is much higher than what a human would be exposed to. And, often it is given in a way that isn't even close to how a human would usually be exposed. For example, chemicals are often force fed to the animal, even if it is an ingredient typically used in a skin cream. So, basically even if there is research, it's often not helpful or especially meaningful. How can you know what's okay to use?

There's an important and very old principle in studying whether a substance is harmful to a person, and that is "the dose makes the poison." Basically, this means that the risk with any exposure, including cleaning products, depends on how much gets into your blood. How do chemical or substances reach the blood? They can be injected directly into the bloodstream, swallowed, inhaled (breathed in), or possibly absorbed through the skin. Unless you are drinking your household cleaner, the actual exposure to your developing baby is likely to be quite low! Generally, inhalation won't allow for much absorption of these kinds of compounds into your blood. When they do get into your blood from inhaling them, they typically don't reach the developing baby or get into your breastmilk in any meaningful quantity.

Now, these products can have some pretty offensive odors, even with the addition of artificial fragrance like 'lemon fresh', 'summer rain', and 'spring flowers'. (And there can be such a thing as too much – sometimes when I go into a bathroom where air freshener has been sprayed, I say to myself "I would rather just smell the poop!") But back to our subject... If a product has an irritating smell, you may think it's very irritating for the baby, too. But, your sense of smell is not a good measure of the amount of a chemical that the baby is actually being exposed to. In fact, many women develop a heightened sensitivity to smells during pregnancy. This motivates you to get yourself to a more comfortable environment and reduce exposure. But it also can make you feel uneasy when you can't seem to get away from the smell. Your nose doesn't always know! If you start feeling dizzy, light headed, confused, or have breathing difficulties while around the cleaning product, these symptoms could mean you had a higher level of exposure. Even with these symptoms, there are no confirmed risks to pregnancy or breastfeeding with exposure to many of the compounds in common cleaning products.

I mentioned the possible absorption of substances through the skin (topical or dermal exposure). When it comes to absorption of cleaning products, your skin is a surprisingly good barrier and prevents many substances from getting into your blood. If skin has been soaking for a while, or there's a scrape or open cut, that may allow a little more absorption. Just like with inhalation, these compounds are not likely to reach the developing baby or breastmilk in any meaningful quantity. However, skin irritation can occur and it's not a bad idea to wear gloves when working with some cleaning products, especially if it's going to be for extended periods of time. It's important for you to maintain your comfort.

We all know that accidents happen, and that is true of accidents with household cleaners, too. You can reduce the chance of these accidents by not drinking or eating while working with cleaning products. Be sure to thoroughly rinse any utensils or dishes that come into contact with the cleaners. Using gloves or safety glasses can help protect your

skin and eyes in case of accidental spills. And, of course, opening a window or turning on an exhaust fan (if you have one) can help reduce the lingering smell.

I mentioned a list of pretty confusing cleaning ingredients at the beginning of this blog and I am quite certain that most of you would fall asleep by the end of this post if I talked about every single one of them. But there are a few common ingredients that are worth reviewing.

Bleach is a common cleaner that most of us have used at one point or another. The active ingredient is sodium hypochlorite, a form of chlorine. Chlorine and chlorinated disinfectants have not been shown to increase the risk of birth defects.

Benzalkonium chloride is another disinfectant that is found in many cleaning products. It is also an ingredient in throat lozenges, diaper rash creams, cosmetics, and vaginal spermicides. Although there are no studies specifically looking at the risks of benzalkonium chloride use in human pregnancy, there also are no reports indicating an increased risk. Again, given how common this ingredient is, having no reports is reassuring.

Finally, there are also many cleaners which contain **ammonia**. Typical use of cleaners containing ammonia is also not expected to increase risks to the baby. Because it has a very strong smell, most people can't stand being around high levels of ammonia without getting pretty sick. Like many cleaners, as mentioned above, a strong odor doesn't necessarily mean a risk to the baby even if you have symptoms like a strong burning sensation in your nose or throat, skin irritation, or you get dizzy. But, if you lose consciousness, that could be a concern as it limits the amount of oxygen reaching the baby. It's good to pay attention to your comfort level.

There are so many different products and ingredients. There's not room enough to discuss them all here. But if you have any questions about a cleaning product or an ingredient in a product, don't hesitate to contact an expert at MotherToBaby!



Mark Roth, BA, is a teratogen information specialist and co-director for the Pregnancy Risk Network, MotherToBaby New York. He has been with the program since 2006. He is a former member of the OTIS Board of Directors and serves as Research Coordinator for MotherToBaby New York. Mark has provided teratology lectures at Arcadia University's Genetic Counseling Training Program and educates medical providers and the public about teratology through lectures, participation in state and national conferences, and one on one conversations. He enjoys pronouncing generic names of drugs.

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What's the Dirt on Household Cleaners When Pregnant?

By Lauren Kozlowski, MSW, MPH, MotherToBaby Georgia

"I didn't even know I should ask my OB about that!" It's a reaction I hear almost daily as a teratogen information specialist (a fancy way of saying I've been trained in evaluating and communicating risks of exposures, like medications, during pregnancy). This particular caller's reaction was like so many women going into their first appointment after finding out they were pregnant – she really didn't know how to be her own best advocate. I don't blame her by any stretch. How are women supposed to just know this? What questions should they be asking? Why should they be asking them? I thought, not only did I want to help her, but all of the pregnant women out there, to have a positive, empowering experience once they've found their pregnancy care provider team.

The Importance of the HCP Match

Finding the right health care provider (HCP) for you is essential because doctors, physician's assistants, nurse practitioners, and midwives are people just like you and me. They come with a wide range of personalities and styles of care. Sometimes they will match your own and sometimes they won't. You want to be sure that the people that you entrust with your health and your baby's health are going to help you make the right decisions about your care. Plus it is worth thinking about how you can reduce any stress you may have about sitting down with the person who will care for you and be a source of support during your pregnancy. In this blog I'd like to suggest some ways that you can plan for the most successful experience during pregnancy with your HCP. In this case, success means finding a provider who listens to you, makes you feel comfortable and discusses all of your concerns and options openly and respectfully.

Getting the Most Out of Your Appointments

The good news is there are some ways to empower yourself in these situations and be more likely to get what you need! Below I have a list of some ways you can get the most out of appointments with your pregnancy care provider:

- You should be able to ask your provider anything you'd like to know about their experience and philosophy around pregnancy and child birth. You can even ask to make a non-clinical appointment to sit down with her or him and discuss this if you'd like to.
- Be prepared for a short visit with the provider at regular appointments throughout your pregnancy. Write down your most important questions and make sure to ask them first.
- If you'd like to research some topics before your HCP visit, choose your sources wisely. The internet is full of a lot of misinformation, but there are reputable organizations from whom you can get evidence-based information about pregnancy. Just a few examples include the **American College of Obstetricians and Gynecologists (ACOG)**, the professional society for HCPs specializing in women's health; the **Centers for Disease Control and Prevention (CDC)**; the **Food and Drug Administration (FDA)**; and our own service, **MotherToBaby**. Pull information from your sources and bring it with you to your appointment to drive your conversation with your HCP.
- Bring a trusted family member or friend who can bring up anything you forget to – or that can step into the conversation to help make sure you are being heard correctly. This is particularly important at the first visit or when you are worried about something.
- If you routinely take any medications, bring them up as soon as you find out you are pregnant (and when possible, even **before** you become pregnant); this will allow you and your HCP to talk about whether there are any alternative medications or therapies better suited for pregnancy and/or breastfeeding. And remember that our specialists at MotherToBaby are available to provide you with up-to-date information on the safety/risk during pregnancy and breastfeeding of any medications you may be taking.
- If you see a specialist for other medical conditions (such as asthma, diabetes, arthritis, lupus, psoriasis, etc.), tell your OB provider who you are seeing and authorize them to communicate with one another about your care. When you are living with a chronic health condition, connecting your pregnancy care provider with your other health providers is important to ensure your disease is well-managed throughout your pregnancy and when you are breastfeeding.
- Even if they don't ask about it, tell your HCP about your use of alcohol, tobacco, or any recreational drugs (like marijuana, heroin, meth, etc.). Some of these substances can affect your pregnancy or your baby's development, so it's important for you and your HCP to talk about it even if you are just an occasional user. Recreational drugs are another type of exposure where MotherToBaby experts can provide you with confidential, up-to-date information on the safety/risk of use during pregnancy and breastfeeding. Importantly, talk to your HCP if you need help quitting any of these substances; there are ways to treat substance use disorders during pregnancy. You also have a chance of being screened for substances at birth – meaning they may test both you and your baby at the hospital. Being prepared for this is important so you know what to expect.
- Ask questions about the hospital at which you will be delivering. Do they have any specific policies or practices you would want to know about in advance? Your HCP will be connected to a specific hospital(s); if you do not want to deliver at that hospital and your insurance allows for other options, you may need to find another prenatal care provider. It is best to ask these questions before you become pregnant or as soon as you start your prenatal care visits.
- If for any reason you do not feel like your HCP listens to you or is able to create a welcoming, safe environment, change providers! If it's a requirement of your insurance, get a list of providers in your network. Then ask friends or family if they have someone they'd recommend. You can further whittle down your list by other things that may be important to you, such as a male vs. female provider or office location. Pregnancy is such an important time in a woman's life, so it's critical that you are under the care of a health provider that you trust. Depending on where you live and what insurance you have, it may not be possible to find another provider – but if you are able and want to, the sooner you do so in your pregnancy the better. You deserve to feel comfortable and cared for!

A lot of these tips apply to any type of HCP, but pregnancy is a perfect time to flex your self-advocacy muscles and find

the provider that is best suited for you. You and baby deserve wonderful and respectful care, and the reality is that sometimes it takes a bit of seeing what's out there to find the right fit. Finding the right HCP can feel a lot like dating, but don't be discouraged! If you don't like the care you are getting, move on to another HCP – with so many exceptional ones out there you can find the best match for you and your pregnancy.

Although not specific to a pregnancy visit, ACOG also offers some tips to help you make the most out of your health care visit: <https://www.acog.org/Patients/FAQs/Making-the-Most-of-Your-Health-Care-Visit>

If you want to read more about advocating for yourself as a patient, some other resources are below:

Your Best Birth: Providers, Plans and Being Proactive

<https://bloomlife.com/wp-content/uploads/2018/11/Best-Birth-Bloomlife-ebook-1.pdf>

At the end this includes a great acronym BRAIN (**B**enefits, **R**isks, **A**lternatives, **I**ntuition, **D**o **N**othing) that can be used whenever you are making decisions or have questions about receiving medical care.

A Doctor's Guide: How To Be A Patient Advocacy Rockstar (For You or a Loved One)

<https://www.acsh.org/news/2018/06/21/doctors-guide-how-be-patient-advocacy-rock-star-you-or-loved-one-13106>

Health Care Self-Advocacy: Be the Squeaky Wheel

<https://www.care2.com/causes/health-care-self-advocacy-be-the-squeaky-wheel.html>

The Complete Guide to Becoming Your Own Medical Advocate

<https://betterhumans.coach.me/the-complete-guide-to-becoming-your-own-medical-advocate-ddc658a10a57>



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By Brittany Ajoku, MotherToBaby North Texas

Did you know that 1 of every 2 sexually active people will contract a sexually transmitted disease (STD) by age 25? That number is shocking, and highlights why it is so important to tackle this often-stigmatized topic head-on! So as we ease into National STD Awareness Month, it's time to talk openly about STDs, pregnancy and breastfeeding. STDs can affect people from all walks of life, and do not discriminate against anyone, including pregnant and breastfeeding women.

I remember when a client recently called our office panicked about the result of an STD test after learning her husband was having an affair. She tested positive for a bacterial infection and her doctor prescribed an antibiotic for treatment. Because she was breastfeeding, she was hesitant to begin using the antibiotic and had many questions. Would the antibiotic hurt her baby? Could she have infected her baby before she knew she had the infection? With a Google search leaving her with more questions than answers, she turned to MotherToBaby. After listening to her concerns, I began to dig through the latest research to provide her with what we are known for: giving understandable and current, evidence-based information.

STD Testing: Why Knowing Your Status Is Definitely Better For You & For Baby

In any woman, including those who are pregnant or breastfeeding, some STDs are asymptomatic (do not have symptoms or signs) even when infected. As a result, it can be difficult to know for sure whether a woman is infected or not without testing. Some STDs are automatically tested for over the course of a pregnancy (such as syphilis, HIV, hepatitis B, and chlamydia) while others are only tested if you are at an increased risk for the infection due to various risk factors. Even if you have already been tested earlier in pregnancy or you were tested in the past while breastfeeding, it is important to let your doctor know if you are having symptoms or suspect you have or may have been exposed to an STD. Earlier treatment of STDs allows for earlier detection of infections, which reduces the likelihood for you to transmit the infection to your baby during pregnancy or via breastmilk. Untreated STDs can not only lead to negative outcomes in moms but can also lead to negative outcomes in their babies.

Some of the negative outcomes from untreated STDs in pregnancy are:

- Preterm delivery
- Low birth weight

- Pregnancy loss
- Infections in the baby's organs
- Premature rupture of membranes

Treating STDs in Nursing Moms and Moms-To-Be

Once detected and diagnosed, it's best to begin to treat the STD as soon as possible. Antibiotics are commonly prescribed to treat and cure bacterial infections, while antiviral medications are prescribed to help treat the signs and symptoms of viral infections. Many medications have not been shown to increase risks in pregnancy and breastfeeding. Our library of fact sheets has many of the antibiotics and antiviral medications used to treat STDs and can be viewed [here](#).

While breastfeeding with an STD, there is an additional factor to keep in mind besides what medication is prescribed to treat the STD. There are some STDs (such as syphilis and herpes) that may produce sores on various areas of the body and it's important to keep your baby and any pumping equipment from touching these sores to limit transmission of infections.

"An Ounce of Prevention Is Worth A Pound of Cure"

As important as it is to talk about treatment, prevention is also important to discuss. Here are a few things to keep in mind both during pregnancy and while breastfeeding.

- It is important to always have open and honest conversations with both your doctor and intimate partner(s) about your STD status.
- Abstaining from any type of sex (oral, vaginal, or anal) is the most reliable way to avoid infection. But if you want to be sexually active (and let's face it, many do!), practice safe sex by consistently and correctly using condoms, especially if you and your partner are not mutually monogamous or have not recently been tested.
- Be sure to get tested as soon as possible whenever you notice symptoms and signs, or think you've been infected.
- If you and/or your partner(s) are currently receiving treatment for an STD, practice abstinence during treatment.

With this information in mind, I was able to counsel my client on the importance of treating her STD and that the antibiotic she was prescribed was not expected to have negative effects in her nursing infant. Many STDs that are bacterial (such as chlamydia and gonorrhea) have not been shown to be transmitted via breast milk so my client had not put her infant at risk prior to treatment.

Just as I was able to help my client, the experts at MotherToBaby are always available to discuss medications and exposures, like STDs, during pregnancy and breastfeeding – it's confidential, no-cost, and judgment-free!



Brittany Ajoku is a Teratogen Information Specialist with MotherToBaby North Texas. She received her bachelor's degree in biochemistry from the University of North Texas and is working towards a Master in Public Health in Maternal and Child Health. Along with providing counseling at the service, she also enjoys raising awareness of the organization through community presentations and events.

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What's the Dirt on Household Cleaners When Pregnant?

By Beth Kiernan, MPH, Interviewer & Teratogen Information Specialist, MotherToBaby

“When my RA started flaring 6 or 7 weeks postpartum, I got to the point that I could barely lift my own baby....We need more research on medications used in pregnancy as well as during breastfeeding!”

I want you to meet Mariah, a participant in our MotherToBaby Rheumatoid Arthritis Study. I chatted with Mariah to learn about her experience being pregnant with a chronic medical condition and to find out what motivated her to participate in our study. As a Baby Blog reader, you are probably aware that MotherToBaby provides information on exposures during pregnancy and breastfeeding. What you might not know is that we also conduct observational research on certain health conditions and their treatments, with the goal of providing moms like Mariah (and like you!) with better information about health and medications in pregnancy. This month's Baby Blog focuses on the role of research at MotherToBaby and puts a spotlight on those who make our program possible: the women who decide to share their pregnancy experience with us.

BETH: Mariah, thank you so much for talking with me about pregnancy research and your involvement with MotherToBaby! As an advocate for moms with **rheumatoid arthritis (RA)** and the creator of the popular blog, **Mamas Facing Forward**, you are inspiring women with chronic illness across the globe who are or want to become pregnant.

MARIAH: I'm so glad to be here and to talk more about pregnancy research! Since being diagnosed with RA, I've taken an interest in medical research—both personally and professionally. It's been interesting to see my RA treatment options expand dramatically between my first pregnancy and my third, which were only about six years apart.

BETH: In general, the medical community knows little about the effects of taking most medications in pregnancy, because pregnant women are often not included in studies that determine the safety of new medicines. What initially interested you about MotherToBaby Pregnancy Studies?

MARIAH: Medication use during pregnancy needs to be studied because of the potential risks for the developing baby! Professionally, I cover developing research for Rheumatology Network so I have a good understanding of the different types and stages of medical research. But even with this background, when I first joined MotherToBaby's study, I didn't understand what “observational research” meant. My biggest concern was: Would I have to take a study drug—or change my usual treatment in any way?

BETH: This is the most common question—or confusion—that I hear from women! How would you describe what observational research is and what would you say is the difference between a clinical trial and observational studies, like MotherToBaby's pregnancy registries?

MARIAH: I've learned that observational means the study “observes” what a participant does, but doesn't advise or require a treatment course or change. There is no tested drug or placebo like in a clinical trial. A pregnancy registry is a study that collects health and medication information from pregnant women and their newborns, and then compares outcomes to unexposed women and their babies. While in the study, I made my own treatment decisions with my doctor, which is logical since she knows my health history best. But because MotherToBaby provides evidence-based information about medications in pregnancy, you also helped me learn more about my medications and specific pregnancy data, which then guided the conversations I had with my doctor before pregnancy and during the flare I had at about 23 weeks.

BETH: I'm glad that we were able to help you during this flare! So what ultimately motivated you to join a MotherToBaby Pregnancy Study?

MARIAH: I've actually participated in two research studies through MotherToBaby, and my main motivation was due to the lack of information on medications during pregnancy. At the beginning of my second pregnancy, I wasn't taking any medications to control my RA and I ended up flaring very badly—to the point where I was having difficulty caring

for myself and my then almost two-year-old son. Though I know oftentimes TNF inhibitors are discontinued in the third trimester (**call MotherToBaby to find out why!**), my rheumatologist and I made the decision to use one so we re-started **Enbrel** near the end of my second trimester and continued through the remainder of my pregnancy. After making such a difficult decision, I called MotherToBaby right away to enroll in the study because I wanted future moms to have the benefit of my data when it came time for them to make a similar difficult decision.

While planning to become pregnant again, my rheumatologist, perinatologist, and I decided to switch me from Rituxan to **Cimzia** prior to conception, and decided that I would remain on Cimzia through my entire pregnancy and while nursing. I joined the **Cimzia & Pregnancy Study** as soon as I found out I was pregnant with my third baby. I'm still involved, in fact, my third baby just turned one and we just got a birthday card in the mail from MotherToBaby! I think it's fantastic to have such a caring group of researchers committed to providing better information for pregnant women living with chronic illnesses.

BETH: Did you have any initial hesitations about joining a MotherToBaby study?

MARIAH: At first, I wondered if study participation would take too much time. I had a toddler at home, I worked, and I was pregnant again. I found out that typically a woman spends about two hours total in phone interviews in the first year, and then just ten minutes per year by phone if enrolled in a multi-year study.

My husband was concerned about privacy. I asked how my personal information would be safeguarded, and who would have access to my medical records. I asked if the study collected my insurance information or social security number—it does not. Results will be published but without revealing my identity. The studies are coordinated out of the University of California San Diego, and their Human Research Protections Program oversees the privacy and security protocols, so there is an extra layer of oversight and protection. Also, pharmaceutical companies are required to sponsor this research but they don't have access to my personal data, and all research is done independently.

Women may feel wary about the idea of participating in research during pregnancy. What has made me feel even more secure is that doctors familiar with MotherToBaby have recommended joining your studies. The studies are not experimental so I didn't find any likely risk, nor is there any cost to me. So this, coupled with the research benefiting other moms like me, made me feel like it was something that I could support pretty easily.

BETH: What was the process of enrolling like for you?

MARIAH: I answered questions about my health history, prenatal test results, some demographic info, and then made a list of exposures during the pregnancy, such as prescription and over-the-counter medications, caffeine, illnesses and other environmental exposures.

BETH: I know you've mentioned the main reason for your enrollment was due to the lack of information about medications during pregnancy. Can you tell us more about how you and your healthcare team navigated your treatment options during pregnancy?

MARIAH: As I mentioned before, my treatment options changed dramatically between my first and third pregnancies. During my first, I spoke to my obstetrician and rheumatologist about my RA medications. I didn't do much research on my own at the time (there were fewer online resources, blogs, and social media connections then too!) but rather I trusted the information being given to me by my doctors. My obstetrician knew almost nothing about RA treatments and deferred completely to my rheumatologist. Based on the data available at the time, I used nothing but **prednisone** during that pregnancy.

When my RA started flaring 6 or 7 weeks postpartum, I got to the point that I could barely lift my own baby. At three months, I made the heartbreaking decision to wean my son so that I could re-start Enbrel, because at the time my rheumatologist did not think there was enough data available for it to be safe enough to breastfeed while taking that medication. I did manage to find one blog at the time where a mom talked about making the decision to use Enbrel while nursing, but as much as I personally wanted to continue breastfeeding I couldn't find adequate information to make me comfortable with the idea.

BETH: I'm so sorry to hear about your struggle breastfeeding. Unfortunately, this experience is very common. We also provide information to moms about breastfeeding exposures, and many of our research participants also provide a sample of breastmilk to **Mommy's Milk** so we can learn more about medications and breastfeeding.

MARIAH: Yes, we need more research on medications used in pregnancy as well as during breastfeeding! So jump forward to two years later during my second pregnancy, my rheumatologist and I decided that the data had improved

enough—and that the uncontrolled inflammation I was experiencing was a greater risk to me and my baby than the potential risk of the Enbrel. I used Enbrel during the end of that pregnancy and through three months of breastfeeding. Though I must say that I made this decision under a fair amount of duress because I was feeling very, very poorly at the time. I assumed I would manage my second pregnancy the same way I managed my first, so when I started flaring badly I did not have a treatment plan in place. This was another situation where I more or less trusted my rheumatologist's advice. Unfortunately, Enbrel lost its effect for me after my second pregnancy and I weaned my second son at three months as well, and began to search for another treatment option.

For my third pregnancy, I consulted my rheumatologist and a perinatologist prior to trying to conceive. I also did a lot more of my own research. I looked to what MotherToBaby had to say about the medications we were considering and found some research studies to read. I was lucky to have doctors who also did their research. My perinatologist didn't know much about Cimzia so she researched it before meeting with me. She shared her research with me and explained how the molecular structure of Cimzia was missing the part that is responsible for crossing the placenta, making it one of the better options for use during pregnancy.

BETH: Wow! That is a lot to navigate –for you and your healthcare providers. As you have shown us, every pregnancy and treatment plan is different! What is one thing you would like pregnant women or moms dealing with a chronic illness to learn from your experience?

MARIAH: When it comes to considering the use of medications during pregnancy, public opinion tends to push the idea that a woman ought to “sacrifice” herself for the sake of her baby during a pregnancy, so it can be difficult for many women to dodge that pressure and to consider medication at all while pregnant. MotherToBaby can help illuminate both the potential benefits and potential challenges of taking a drug while pregnant or breastfeeding. I'm glad to talk about these issues, and recommend paths to women that may make their decisions easier!

BETH: Thank you so much for talking with us today and for sharing your experience, Mariah. I think many women will be interested in hearing how you navigated pregnancy and motherhood while living with a chronic illness. So many women grapple with medication questions during pregnancy, and whether they decide to participate in our studies or not, we are glad you are here to help them through it on your blog and as an RA patient advocate. Any last words about pregnancy & research?

MARIAH: I recommend you ALL THE TIME – and have benefited firsthand from the research studies!

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If you are pregnant and interested in participating in a study, contact MotherToBaby to see if you qualify! We enroll pregnant women taking certain medications or living with chronic health conditions like rheumatoid arthritis, psoriasis, psoriatic arthritis, ankylosing spondylitis, Crohn's and ulcerative colitis, multiple sclerosis, asthma, high cholesterol, and eczema. We also enroll women without any of these conditions or medication exposures. You can view a list of all our ongoing studies here: <https://mothertobaby.org/ongoing-studies>. We look forward to speaking with you!



Beth Kiernan, MPH, is a Teratogen Information Specialist with MotherToBaby Pregnancy Studies, a series of observational research studies about medications and health conditions during pregnancy. The studies are conducted by the non-profit Organization of Teratology Information Specialists (OTIS). Beth is based at the University of California San Diego, and is a married mother of four children.

About MotherToBaby

MotherToBaby is a service of the Organization of Teratology Information Specialists (OTIS), and a suggested resource by many agencies including the Centers for Disease Control and Prevention (CDC). If you have questions about exposures during pregnancy and breastfeeding, please call MotherToBaby toll-FREE at 866-626-6847 or try out MotherToBaby's new text information service by texting questions to (855) 999-3525. You can also visit [MotherToBaby.org](https://www.MotherToBaby.org) to browse a library of fact sheets about dozens of viruses, medications, vaccines, alcohol, diseases, or other exposures during pregnancy and breastfeeding or connect with all of our resources by downloading the new MotherToBaby free app, available on **Android and **iOS** markets.**

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What's the Dirt on Household Cleaners When Pregnant?

By Lauren Kozlowski, MSW, MPH, MotherToBaby Georgia

Carly called and I could hear the stress in her voice immediately. She had been smoking marijuana on weekends and having a glass of wine most evenings with her dinner. She just found out she was pregnant with her fifth child. Carly knew her baby could suffer if she did not change her use of alcohol and marijuana. Carly was scared, so she contacted MotherToBaby. We were able to discuss what kinds of risk the substances she had used may have, and I shared information with her that she could talk to her doctor about. Carly's story immediately came to mind when talking about Birth Defects Prevention Month's **Tip ③: Boost your health by avoiding harmful substances during pregnancy, such as alcohol, tobacco, marijuana and other drugs.**

Alcohol

Alcohol is actively advertised as a way to relax after a hard day, and it's almost always a part of celebrations. Alcohol is legal to purchase in any amount for most adults 21 and older, making it very accessible. Changing your lifestyle to not drink any alcohol during pregnancy may seem hard, but it is worth it for the health of your developing baby.

Though having one drink likely does not mean your baby will automatically have health problems, no amount of alcohol has been proven safe during pregnancy. This means that not drinking alcohol at all during pregnancy is your best bet. Alcohol can cause a range of issues for the health of your child. Some are physical birth defects, while others are related to controlling emotions effectively and learning abilities. Some of these issues last long after birth and can have lifelong effects on your child.

Cigarettes & e-cigarettes

Smoking and the use of tobacco products are activities that many associate with stress reduction and, like alcohol, can be hard to stop. Cigarette smoke contains more than 4,000 chemicals and toxins, including nicotine, tar, arsenic, lead, and carbon monoxide. Some of these chemicals cross the placenta and lower the amount of oxygen and food available for a developing baby. Babies born to mothers who smoke are at increased risk for being born too small (with low birthweight) and prematurely (before 37 weeks of pregnancy). Babies born too small and too early are more likely than other babies to have health complications and may need to stay in the hospital longer. Some studies suggest that babies born to moms who smoke are at risk of having an oral cleft, a birth defect where the lip or roof of the mouth does not fully close. Not smoking is best for you and your baby during pregnancy. Every little bit counts, so even reducing the amount can be helpful to your baby!

In comparison to traditional cigarettes, we know very little about the safety of e-cigarettes (or vaping) during pregnancy. This is because e-cigarettes are largely unregulated, and little research has been done on them. While some moms-to-be may view e-cigarettes as safer alternatives than traditional cigarettes, e-cigarette solutions contain several of the same reproductive or developmental toxins that are found in traditional cigarettes, like nicotine, cadmium and lead. So until more studies have been done on the safety/risk of e-cigarettes, it is best for moms-to-be not to use them.

Marijuana and other street drugs

Another way to boost your health during pregnancy is to not use harmful drugs. For example, women may think marijuana may help with nausea and vomiting (morning sickness). Though we still need more research, studies in animals have shown that exposure to marijuana in the womb may harm a baby's brain development. Marijuana is unregulated in most places, so you don't know what may be in it – certain chemicals, pesticides or other drugs may cross the placenta and impact your baby. In addition to smoking marijuana, using substances that include THC (the active ingredient in marijuana), such as edibles and oils, carries the same potential to affect a baby's brain development. No amount of marijuana or THC has been proven safe to use during pregnancy.

Other street drugs, like cocaine, heroin, LSD, MDMA (ecstasy or Molly), and methamphetamine, also are harmful during pregnancy. Using these kinds of drugs during pregnancy increases a baby's risk for miscarriage, preterm birth, birth defects and neonatal abstinence syndrome (NAS). NAS is a group of conditions caused when a baby withdraws from certain drugs she's exposed to in the womb before birth. NAS is most often caused when a woman takes drugs called opioids during pregnancy. Not a single one of these drugs has a beneficial effect on pregnancy or a developing baby – so for your baby's sake as well as your own, a drug-free pregnancy is a healthier pregnancy.

It is important to realize that giving birth to a baby with ten fingers and ten toes – who looks healthy at birth – is not the end of the story. Effects caused by the use of alcohol, tobacco and other drugs during pregnancy can take a while to show. As a child develops and reaches or fails to reach developmental milestones, only then is it possible to evaluate the long-term effects of prenatal substance exposure on things like the ability to learn and manage emotions. While every pregnancy carries some risk that is out of anyone's control, we want to encourage women to focus on areas of their health that they do have some control over. Taking care of yourself and your health means a healthier baby. Doing what you can to boost your health by avoiding harmful substances during pregnancy is a great place to start!

If you are struggling with substance addiction, talk to your health care provider. You can also find help and treatment referrals by visiting the Substance Abuse and Mental Health Services Administration (SAMSHA) website or by calling their national helpline, 1-800-662-HELP (4357).



Lauren Kozlowski, MSW, MPH is serving as the Program Coordinator for MotherToBaby Georgia. She graduated from Boston University with both a Masters of Social Work and a Masters of Public Health. She has experience working with families in both an educational setting, as well as in housing and health, allowing her to recognize the multiple factors contributing to the ability of women and children to thrive. She enjoys living in Atlanta and exploring what the city has to offer.

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