Behind the Scenes at MotherToBaby

Did you know that 70% of pregnant women take at least one prescribed medication? And that 90% take any medication during pregnancy? How do you know if it is safe for a pregnant woman to take these medicines?

MotherToBaby Teratogen Information Specialists (TIS) are experts at answering questions about any possible increased risk of taking an over-the-counter (OTC) or prescribed medication, as well as any other exposures! A teratogen is something that can increase the risk for birth defects to the developing baby, and other problems such as a smaller baby or early delivery, when exposure occurs during pregnancy. Special intensive training is required to become a TIS, before we are able to answer the questions of healthcare providers, pregnant and lactating women, their relatives and partners, prospective adoptive parents, and the public. We get calls from people of all ages, teens up to older adults, even prospective grandparents. Teratogen specialists learn how to investigate the question, summarize the data, and then communicate it in a way that is easily understood. Every contact is a little different because each scenario is different, but that makes each day endlessly fascinating for those at MotherToBaby who respond to your inquires.

This work is different than the work of other healthcare providers such as a genetic counselor, midwife or obstetrician – we don't generally delve into family history, and we don't make direct recommendations. We try to be reassuring as we give you the most up-to-date exposure information. We consider the potential effects of taking AND not taking a medication, herbal supplement, or OTC drug. There are important considerations when someone is planning a pregnancy, facing a newly discovered pregnancy or an unanticipated pregnancy, dealing with worsening mental or physical health conditions, or with the sudden diagnosis of a birth defect or pregnancy loss.

We answer questions from prospective adoptive parents who may only have 36 hours to decide if they will accept a baby whose biological mom used heroin, methamphetamine or alcohol in pregnancy. We listen to pregnant callers worried about the substantial alcohol they drank or the marijuana they used before getting a positive pregnancy test. We also answer questions from people worried about Zika virus exposure on their honeymoons. And common questions these days involve the COVID-19 virus and the COVID vaccines and booster shoots given at any time in pregnancy or while breastfeeding.

Teratogen specialists also get calls about the potential consequences of pain medications for those who are pregnant and facing surgery such as a pre-op visit for a herniated disc – and are in excruciating pain. We have numerous conversations with lactating women who were advised to "pump and dump" after dental work or general anesthesia, or CT scans and we are able to discuss why this dated practice is usually unnecessary. Some women call repeatedly due to anxiety or simply because our TIS team has reliable expertise. We also answer breastfeeding questions about COVID-19 and the vaccines, prescriptions and OTC medications, or how much of a drug gets into breastmilk. And we get questions from pregnant and postpartum individuals who are trying to avoid using inhalers or taking their anxiety/nausea/ADHD medications. We share the research and reassure them that some health conditions need to be treated with medications because it's best for mom and baby. Some conversations are more sensitive – such as women with a history of multiple miscarriages, IVF, or other high-risk pregnancies who are trying to make only the best choices in a high-stakes stressful time. Sometimes there are tears, and that's OK.

Often, we talk about the benefits to the individual of taking/using the medication or other product, versus any possible risks to the pregnancy or the baby. We tell them to consider the long view, that as a parent, you will be making "risk vs. benefit" decisions for nearly the next two decades for the child growing inside you. So, it's important for you to make a choice now that gives you a good quality of life, and also to consider every aspect of the consequences for you both mentally and physically. In addition, it is in the important input of your partner and your healthcare providers.

It is a privilege to be part of the lives of all those who come to MotherToBaby for information. We are sensitive to different cultures, backgrounds, sexual orientation, and gender identification. We have 12 affiliate offices in the US and one in Canada. We provide information by phone, text, email, and live chat, and because we work across three times zones, we can respond quickly!

Affiliate offices are based in universities, academic medical centers, or health departments. Our multi-disciplinary team of Teratogen Information Specialists includes genetic counselors, nurses, doctors, and others with a master's degree or Master of Public Health specifically. We also provide services in Spanish. We meet at least annually for training plus more often within our own institutions to discuss new publications and developments in the field.

Please spread the word. We welcome your inquiries!

Questions? Call 866.626.6847 | Text 855.999.3525 | Email or Chat at MotherToBaby.org.

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Carrie called MotherToBaby on a Monday morning. She sounded anxious. "I just got home from a pretty wild bachelorette party held last week in New Orleans. I started feeling nauseous on the plane and I have thrown up twice this morning. I couldn't eat breakfast. I'm really tired and my breasts hurt a little. I'm worried I might be pregnant." Carrie was wondering if we could help her figure out if she was pregnant or not. Although MotherToBaby mainly answers questions about medications and other exposures during pregnancy and breastfeeding, the "am I pregnant" question is one we hear often.

This call reminded me of another one that I received several weeks prior – Anya called to say that she was two days late for her period, but she hadn't been able to take a pregnancy test just yet. She was taking birth control pills and had missed one day but took two pills the next day, just like her doctor had told her to do if that happened. She was hoping she wasn't pregnant, but she was worried that taking the birth control pills may have increased the chance for

a birth defect in her baby if she was pregnant.

January is National Birth Defects Awareness Month, and a great time for those planning a pregnancy to review their own risk for having a child with a birth defect. Over half of all pregnancies in this country are unplanned. Talk with one of our specialists. Together with MotherToBaby, you can consider your own risk in a thorough discussion. Also see this link to the CDC page on birth defects prevention.

Back to our callers' situations. There are many signs of early pregnancy and they may be different from person to person. Yet there can be other reasons a person might have any of these symptoms, which is why it's important to perform a pregnancy test. The following symptoms could be side effects from hormonal contraception OR early signs of illness OR your period is about to start OR actually signs of pregnancy. These include light vaginal bleeding or spotting, mild uterine cramping, sore or swollen breasts, feeling tired, feeling bloated, feeling moody, urinating more often than usual, food aversions, nausea or vomiting, constipation, stuffy or runny nose. Even a missed period might not mean you are pregnant.

If you think you may be pregnant, the best way to know for sure is to take a pregnancy test. Home pregnancy tests, sold at grocery stores, pharmacies and drugstores, are about 90% accurate on the day you are supposed to have your period. If you wait just one more week, the tests are reported to be about 97-99% accurate. Taking a test sooner than the day your period is supposed to start can lead to false negative results. How? Pregnancy tests measure a hormone called human chorionic gonadotropin (hCG) in your urine and your body only makes this hormone if you're pregnant. Your body makes more hCG as time passes though, and your test could be negative if there isn't enough hCG to measure in your urine yet. Home urine pregnancy tests are just as accurate as the urine tests at the doctor's office when they are used correctly and at the right time in your menstrual cycle. Before you begin, make sure to check the expiration date on the outside of the box. Carefully read the instructions. If you still aren't sure about the result, visit a clinic to be tested again.

While a woman waits until the day she can take a pregnancy test, meaning until she knows for certain whether or not she is pregnant, it's important to avoid alcohol, smoking, and drugs. All of these substances can be harmful to a pregnancy and to a developing baby. MotherToBaby is an excellent resource for discussing these exposures during pregnancy, plus for any medications you might be taking. This conversation can be useful in making decisions with your doctor about continuing or stopping a medication. In some cases, it may actually be better to continue taking certain medicines, for both your own health and the baby's well-being. Don't stop your medications until you speak with your doctor or pharmacist.

If your period has not started within a week after a negative result, you should take another pregnancy test. If it's still negative, make an appointment with your healthcare professional to determine what may be going on. You might be stressed, be exercising too much, getting sick or experiencing hormonal imbalances. All of these should be discussed with a doctor. If you are not pregnant, it's also an excellent time to discuss short-term birth control or long-acting reversible contraception (LARC) like IUDs or birth control implants. No contraceptive method is 100% effective, and I've spoken with people who became pregnant even with LARC, but the chance of an unplanned pregnancy is far less with correct use of contraception with every sexual act. It's also a good idea to start tracking your periods to learn more about your body and to know when to expect your period. Check out your app store for free apps like: Flo, Clue Period & Cycle Tracker, or Ovia Fertility & Cycle Tracker.

If your home pregnancy test is positive, make an appointment with your healthcare provider. The sooner your pregnancy is confirmed, the sooner you can begin prenatal care. Either before or when you suspect a pregnancy, begin taking a daily prenatal vitamin with at least 400mcg of folic acid. These help support the baby's growth and development and are an important supplement to a good nutritious diet. Check to see if you are up to date on all recommended vaccines. Get some exercise, plenty of sleep, and pay attention to your mental health. See our healthy pregnancy blog post for more details. MotherToBaby is here to help with any questions you have throughout pregnancy and while breastfeeding.

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Behind the Scenes at MotherToBaby

It's that time of year again, when the holidays invite family gatherings, and colder, shorter days make us long for sunny destinations. Yes, the winter travel season is upon us! Remember winters past when COVID-19 wasn't around and we'd never heard of Zika? When we didn't give much thought to health concerns related to hopping on a plane or going to busy holiday venues? Things are different now. If you're pregnant, you might pause before booking airline tickets or RSVPing "yes" to that extended family reunion. Take a moment to consider the possible risks associated with your plans, and how you might reduce them (by taking precautions) or eliminate them (by making alternate plans instead). Here are a few things to think about:

COVID-19:

Try as we might, we can't escape it or wish it away. We are, in fact, still in the middle of a pandemic, with new variants appearing and cases still rising and falling unpredictably in most places. Traveling on public transportation (such as airplanes, ships, trains, subways, taxis, and ride shares) can make getting and spreading COVID-19 more likely. So can being in crowded indoor spaces, especially if not everyone in those spaces is fully vaccinated against COVID-19 and/or wearing a mask. Having COVID-19 in pregnancy can increase pregnancy risks such as stillbirth and preterm delivery. So, how can you eliminate or reduce your chance of exposure to the virus?

- **Avoid public transportation.** If you must travel, using your own vehicle with members of your own household is the safest bet. Using drive-thrus or packing your own food to stop and eat along the way is safer than eating in crowded restaurants full of other holiday travelers.

- If you must travel on a plane or use other public transportation, **wear a well-fitting mask** the whole time (this is required), **stay at least 6 feet away** from other travelers when possible, and **wash your hands**/use an alcohol-based hand sanitizer frequently. Most importantly, make sure you're **fully vaccinated** before you travel, including getting a booster dose when you're eligible.

- Did I mention making sure you're **FULLY VACCINATED** before travel? It's the single best way to reduce the chance of getting very sick if you're exposed to the virus that causes COVID-19. Pregnancy and being very sick don't go well together, so this one is really, really important, whether you're traveling or not. MotherToBaby has helpful resources on the COVID-19 vaccines and booster shot, and you can contact us to talk through any questions or concerns you may have about getting the vaccine.

- Even if you're fully vaccinated, you might still consider **wearing a mask indoors** during holiday gatherings (and elsewhere), especially if you're getting together with people from different households coming from different places. If everyone else at the gathering also wears a mask indoors, even better.

- Find more tips and information about safer holiday celebrations and travel in the time of COVID at this link: https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/holidays/celebrations.html.

Influenza (the Flu):

Flu season carries its own risks for people who are pregnant. Like COVID-19, having the flu during pregnancy increases the chance of being very sick compared to people who aren't pregnant. Many of the same precautions that apply to COVID-19 apply to the flu as well:

- **Get the flu shot.** Like the COVID-19 vaccine, the flu shot can be given at any time during pregnancy, and can even be given at the same time as a COVID vaccine or booster. The sooner you're vaccinated, the sooner you and your pregnancy will have good protection against becoming very sick from the flu. And (bonus!) getting vaccinated in pregnancy may pass some protective antibodies to your developing baby.

- **Avoiding public transportation and crowded indoor spaces** will also reduce your chance of exposure to the flu virus. **Washing your hands frequently**/using an alcohol-based hand sanitizer is also an excellent flu prevention technique.

Zika:

Yes, Zika is still around. There are no known "outbreaks" of Zika anywhere in the world at this time, but there is ongoing, low-level, sporadic transmission in some places. Having Zika during pregnancy increases the chance of serious and lifelong effects for a developing baby. There is no vaccine against the Zika virus.

- The safest course in pregnancy (or if you're trying to conceive) is to **avoid travel** to places with a chance of exposure. Unfortunately, it's virtually impossible now to know the exact risk of being exposed to Zika in any

given country, but if you must travel, you can use the CDC's Zika map to help you plan.

- If you travel,**use insect repellent** and take other precautions to help avoid mosquito bites, such as wearing long sleeves and pants. If your partner travels with you, take steps to **avoid sexual transmission of Zika**. If you're planning a pregnancy, follow the recommended wait times (2 months for women, 3 months for men) before trying to conceive.

Other infections:

If you're considering international travel, there may be other infections to consider, such as malaria and foodborne illnesses. You might also need other vaccines, so be sure to review the current vaccine recommendations for your destination. Some vaccines can be given during pregnancy, but it's a good idea to check with your healthcare provider or contact MotherToBaby to discuss the risks and benefits of specific vaccines as you're deciding about travel.

Medical concerns:

Other travel considerations include the increased chance of blood clots during travel if you're pregnant, and where you will receive medical care in case of unexpected preterm labor or another medical emergency. Before any travel, be sure to talk with your healthcare provider about any additional considerations that are specific to you and your pregnancy.

Given all these considerations, if you're pregnant you might decide this year is a good one to enjoy low-key holidays at home and save the travel for another time. However you decide to spend the season, we hope it's safe, healthy, and happy!

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Being pregnant can be stressful enough without worrying all the time about things like “can I bake with poppy seeds?” Or “can I drink tea with peppermint?” Recently I had a caller tell me that “it seems like every time I turn around, there is something else that either I should not cook with or drink in a tea during pregnancy. What about when I am breastfeeding? Help!” As a specialist who answers questions about exposures during pregnancy and breastfeeding, I hear these kinds of questions all the time.

Spices vs. Herbs

Let’s explore some of the spices and herbs that are not recommended for frequent use during pregnancy and breastfeeding. Many of these items can be used in different ways, such as in baking, to flavor candy, as spices in foods, toppings on salads, or as part of herbal teas. To clarify, the difference between a spice and an herb is that herbs have to have a green leafy part and are mainly used for flavoring. They are also used as a garnish in cooking or salads. Spices, on the other hand, come from a variety of things such as dried roots, nuts, dried fruits and vegetables, or even from bark. Some spices are used for flavoring, while others are used as food preservatives or to give food color. If you use these herbs and spices once in a while as flavoring in your food and drinks, that is OK. The concern is when you consume these items every day or most days.

Poppy Seeds

Poppy seeds come from the poppy plant and are often used in foods such as bagels, pastries, cakes, and salad dressings. The seeds are washed and processed before use and eating small amounts now and then as part of a food dish or baked item is not known to be a risk during pregnancy or breastfeeding. However, the outer surface of the poppy seed does contain small amounts of morphine and other opiates such as codeine. When poppy seeds are used to make tea, the drugs can seep into the water when the seeds are soaked. Poppy seed tea should be avoided during pregnancy and breastfeeding for this reason.

Nutmeg

Who hasn’t had nutmeg floating on top of a latte or a cup of hot apple cider on a cold day in the winter? Nutmeg is a ground spice that comes from the seed of a dark-leaved evergreen tree. Nutmeg is also used in many different baked goods and with vegetables, specifically going well with squash dishes. Eating a little nutmeg as a spice in food does not have a known increased risk during pregnancy or breastfeeding. But high levels of nutmeg can also be used as a recreational drug as it contains myristicin, which has mind altering hallucinogenic effects. The myristicin isolated from nutmeg oil can be used to produce synthetic amphetamines. Also, in the past, nutmeg was used in folk medicine to induce abortion. Because of this, high level exposure should be avoided in pregnancy and breastfeeding.

Peppermint

Peppermint use is a common question during pregnancy and breastfeeding. Peppermint is a popular herb used as flavoring in candy, chewing gum, desserts, and tea. Peppermint oil is also made from the leaves of the peppermint plant. The oil is widely used topically on the skin to treat headaches, muscle, and joint aches and pain, and in aromatherapy to treat coughs and colds. Peppermint oil can also be diluted with water and sprinkled around your house as an insect repellent too. So is this popular herbal product a risk during pregnancy? High levels of peppermint exposure during pregnancy can be a risk since it can relax the muscles of the uterus and increase the risk for miscarriage. For that reason, frequent use of peppermint oil on your skin (see our blog on essential oils) or drinking lots of peppermint tea is not advised during pregnancy.

Rosemary

One of my favorite herbs is rosemary! It is easy to grow and widely used as a seasoning in soups, salads, vegetable dishes, and with chicken and fish. Rosemary grows as a large evergreen shrub. The small evergreen “needles” are used in cooking, while the oil is used in folk medicine for digestive problems and to treat headaches. The concern comes when ingesting large amounts of rosemary, which can stimulate menstruation and increase the risk for miscarriage. Due to this reason, using rosemary for medicinal reasons or frequently on your skin is not advised during pregnancy. Rosemary also contains camphor. When taken orally in high amounts, camphor can act as a poison.

Garlic

Lastly, I want to talk about garlic, a favorite for many people. Is it an herb or a spice? Even though garlic is widely used as both an herb and a spice, it is really a root vegetable. I still want to include it in this blog due to its widespread use as a spice. Garlic is popular in pasta dishes, in garlic butter and on garlic toast, and in many dishes such as stews and soups! Additionally, garlic is high in vitamins B6 and C and is also high in calcium, so it’s often taken as an oral supplement. Yet taking high levels of garlic can increase the risk for bleeding as garlic contains alliin, which acts as a blood thinner in our bodies. During pregnancy, this can lead to an increased risk for miscarriage. Avoiding high levels of garlic during pregnancy is advised. Even topical use of garlic on your skin is not advised as it can cause dermatitis and burns. When breastfeeding, eating garlic can change the taste of the milk and babies may not like it. Garlic use can also increase the chance for gas and colic in some babies.

Hopefully this blog has helped you make heads and tails out of using/eating/drinking these spices and herbs during pregnancy and breastfeeding. In general, with many spices and herbs, using a little bit to flavor your food usually does not have any known increased risks during pregnancy or breastfeeding. However, using the product in a tea or as an oral supplement is often not advised. We have a helpful fact sheet on herbal supplements that explains how little pregnancy safety data there is on most herbal supplements. Plus, these products are not regulated by the Food and Drug Administration (FDA) for safe use during pregnancy and breastfeeding. Any time you have questions or concerns about using spices and herbs during pregnancy, please contact us! One of our specialists will be happy to help you.

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Morgan called late Friday afternoon with a question about COVID-19 booster shots. She shared that she was 37 weeks along and had received both shots of the Pfizer COVID-19 vaccine back in February, at the very beginning of her pregnancy. Morgan wanted to do what was best to protect her baby, and asked if she qualified for the booster shot that was now available.

As a Teratogen Information Specialist at MotherToBaby California, COVID-19 vaccine questions are my number one inquiry right now. With the guidance continuing to evolve as the pandemic rages on, it can be hard for pregnant women to keep up! Luckily, that's what we are here to help with. I shared with Morgan that although the vaccines are still working well to prevent severe illness, hospitalization, and death, overall effectiveness has been shown to decrease over time (called waning immunity). Because of this decreased protection, the Centers for Disease Control and Prevention (CDC) have recommended booster shots for some people over the age of 18, including:

- Certain groups – including those who are pregnant or recently pregnant – who got both doses of an mRNA vaccine (Pfizer or Moderna) at least 6 months ago, and
- Everyone who got the Johnson & Johnson vaccine at least 2 months ago.

So, what does this mean for my pregnant caller Morgan? Women who are pregnant and recently pregnant (up to 42 days after delivery) may be more likely to get severely ill from COVID-19. We know that there are higher risks of ICU admission, need for a ventilator, and death when a woman gets COVID-19 while pregnant, so protection of this group through vaccination is extremely important. I shared with Morgan that since it has been more than 6 months since she received her first two doses of the Pfizer vaccine, and since she is currently pregnant, she may choose to get a booster shot. The American College of Obstetricians and Gynecologists (ACOG) and the Society for Maternal Fetal Medicine (SMFM) have both recommended the booster at any time in pregnancy once you're eligible for it.

Morgan and I went on to review the latest pregnancy data on the COVID-19 vaccines, which now includes thousands of women who have received mRNA vaccines (Pfizer or Moderna). Reassuringly, the available data does not suggest a risk for pregnancy complications (including miscarriage, preterm birth, stillbirth, effects on the baby's growth, or infant death). Although COVID-19 booster shots have not been specifically studied in pregnancy, the Pfizer and J&J boosters are the same dose and contain the same ingredients as the initial doses, and the Moderna booster contains just half of the original dose. Most experts agree that the components of the COVID vaccines only stay in our bodies for a short time, and are not expected to cross the placenta to reach the baby.

Morgan was happy to hear that she qualified for the booster shot. Her three-year-old was in preschool, and although he wore his mask every day, she was still worried about him bringing home COVID and infecting her. She also visited her grandparents often, and wanted to keep them safe. For her, the benefits of protecting herself and her unborn baby definitely outweighed any potential risks.

Before we disconnected, Morgan asked about her sister-in-law who received the Moderna vaccine three months ago and was now pregnant. "Would she be able to get a booster?" Looking at the latest CDC guidelines, I informed Morgan that her sister-in-law would need to wait until 6 months after her second dose of Moderna before she became eligible for the booster. However, I also reminded her that her sister-in-law still has good protection against becoming very sick or hospitalized from COVID-19 from her initial vaccination. Like everyone who is pregnant, she should continue to take other precautions, such as wearing a mask and avoiding crowded indoor gatherings.

If you are unsure whether or not you qualify for a booster or you have other vaccine-related questions, please reach out to a MotherToBaby Specialist. And for anyone who has not yet received their initial COVID-19 vaccine, please know that it is strongly recommended before or during pregnancy by many organizations focused on maternal and child health, including the CDC, the American College of Obstetricians and Gynecologists, and the Society for Maternal-Fetal Medicine. If you would like to go over the latest pregnancy information for the COVID-19 vaccines, COVID-19 boosters, or any other exposures, please give us a call.

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