

Don't Stress Me Out: Post Traumatic Stress Disorder (PTSD) and Pregnancy

- My fear and anxiety over my soon-to-arrive first child is overwhelming on a daily basis...I'm angry some days, sad some days, and panicked other days.
- My anxiety and depression levels has been higher than normal
- I'm scared when I go anywhere or see anyone, even when I'm maintaining social distancing.
- We planned on having an amazing support team and the rug was pulled from under us.
- I realize this is uncharted territory, but I have not felt supported as a first-time mother.¹

These were the sentiments of pregnant individuals going through the pandemic. It was an unprecedented event and as MotherToBaby Specialists we were challenged with dealing with the anxiety of expectant parents as they tried to get reliable information and deal with their fears, anxiety, and frustrations. Fortunately, as time went on, the infection did not appear to increase the chance of birth defects but now there is a question of the emotional toil it put on pregnant women.

Post-traumatic stress disorder (PTSD) is a condition of persistent mental and emotional stress that occurs after suffering a stressful or extremely traumatic event. Unlike post-traumatic stress that lessens over time, the symptoms of PTSD do not fade. Symptoms of PTSD fall into the following four categories and can vary in severity:

- **Intrusion:** may include intrusive thoughts or distressing memories, flashbacks, nightmares
- **Avoidance:** may include avoiding thinking or talking about the event or their feelings; avoiding things that remind them of the event (people, places, activities).
- **Negative changes in thinking or mood:** may include lack of memory on details about the event; negative thoughts and feelings about themselves or others; feeling numb or detached from others; loss of interest in activities.
- **Changes in physical and emotional reactions (arousal):** may include being irritable and having angry outbursts; self-destructive behavior; having problems concentrating or sleeping.

In general, PTSD occurs more often in women than in men and in the pregnant population more than non-pregnant individuals. According to some studies, 3% to 19% of pregnant women experience PTSD.² When it comes to psychiatric disorders during pregnancy, PTSD after childbirth or postpartum PTSD is considered the third most common mental health disorder after depression and nicotine dependence.³

If left untreated or poorly treated, PTSD can have long lasting effects not only for the pregnant woman but also in her relationships with other people, especially family, and interfere in bonding with their child and breastfeeding that can have long-lasting impact on the child. Pregnant women with untreated PTSD have a higher chance of experiencing negative birth outcomes including gestational diabetes (diabetes that develops during pregnancy), preeclampsia (severe high blood pressure), low birthweight (weight at birth of < 2500 grams, 5.5 pounds), and preterm birth (before 37 weeks pregnancy). Also, quite alarming, PTSD is closely linked to attempting or committing suicide and substance abuse, two leading causes of maternal death in the United States.³

We know that the pandemic was a stressful situation for the entire country and especially pregnant women, but what were the long-term effects, particularly in regard to PTSD. In general, risk factors for postpartum PTSD include, but are not limited to, the fear of childbirth, prenatal health concerns (preeclampsia, birth defects), the lack of emotional/social support, depression and anxiety. During the pandemic the primary concern was the risk of infection for themselves and for their child before birth and after. Also, birth plans had to be changed due to hospital restrictions. They did not have the social support that they expected or planned with their doulas, partners, family or friends. The lack of social support was not only an issue during childbirth but remained after birth due to stay-at-home orders. Furthermore, expectant parents may have had to face other problems amplified by the pandemic like unemployment and the loss of a loved one. The sense of security and community was greatly affected during the pandemic and then expectant parents had to navigate a new world while just becoming parents, as expressed by pregnant women above. All of these factors can create a traumatic experience of childbirth and raise the chance for PTSD.

There have been multiple studies investigating the effects of the COVID-19 pandemic during pregnancy. While studies may have differed in their approach to review this topic, the results generally showed that giving birth during the pandemic had many effects on the pregnant population and that PTSD was quite common. Also, rates of PTSD were higher among Black and Latinx pregnant women than whites and lower socio-economic status (i.e., less educational and income).

Recommendations:

There is a call for PTSD to be screened during pregnancy and after to make sure that no one falls through the cracks. It is suggested that providers who had patients deliver in the early part of the pandemic, follow-up with them to make sure they are coping well. Not everyone who experiences PTSD will need counseling, but pregnant women should know about their options.

“Trauma is perhaps the most avoided, ignored, belittled, denied, misunderstood, and untreated cause of human suffering,” said Peter Levine, PhD, trauma specialist. For pregnant individuals, if your symptoms are interfering with your quality of life, please speak with your healthcare professional so that you can get the assistance that you need. ***As MotherToBaby information specialists we can connect you to the resources that can promote your health and well-being. We provide information about medications used to treat PTSD as well as exposure to anxiety, depression, and stress on pregnancy and breastfeeding. We are just one important resource that new and expecting parents can rely on for confidential information. Contact us today or visit our Resource Hub on Mental Health during pregnancy and breastfeeding.***

There are resources available to help you.

Postpartum Support International: <https://www.postpartum.net/learn-more/postpartum-post-traumatic-stress-disorder/>

National Maternal Mental Health Hotline: **1-833-943-5746 (1-833-9-HELP4MOMS)**

<https://mchb.hrsa.gov/national-maternal-mental-health-hotline>

References:

- Kinser PA, Jallo N, Amstadter AB, et al. 2021. Depression, Anxiety, Resilience, and Coping: The Experience of Pregnant and New Mothers During the First Few Months of the COVID-19 Pandemic. *J Womens Health (Larchmt)*. May;30(5):654-664.
- Padin AC, Stevens NR, Che ML, et al. 2022. Screening for PTSD during pregnancy: a missed opportunity. *BMC Pregnancy Childbirth*. Jun 14;22(1):487.
- Khsim IEF, Rodríguez MM, et al. 2022. Risk Factors for Post-Traumatic Stress Disorder after Childbirth: A Systematic Review. *Diagnostics (Basel)*. Oct 26;12(11):2598.
- Sharpe, Rachel. "100+ PTSD Quotes to Help Survivors Cope with Trauma". *Declutter the Mind*, 27 February 2021. <https://declutterthemind.com/blog/ptsd-quotes/>. Accessed 22 April 2023
- Shuman CJ, Morgan ME, et al. 2022. Associations Among Postpartum Posttraumatic Stress Disorder Symptoms and COVID-19 Pandemic-Related Stressors. *J Midwifery Womens Health*. Sep;67(5):626-634.
- Benzakour L, Gayet-Ageron A, et al. 2022. Traumatic Childbirth and Birth-Related Post-Traumatic Stress Disorder in the Time of the COVID-19 Pandemic: A Prospective Cohort Study. *Int J Environ Res Public Health*. Oct 31;19(21):14246.

Questions? Call 866.626.6847 | Text 855.999.3525 | Email or Chat at [MotherToBaby.org](https://www.MotherToBaby.org).

Disclaimer: MotherToBaby Fact Sheets are meant for general information purposes and should not replace the advice of your health care provider. MotherToBaby is a service of the non-profit Organization of Teratology Information Specialists (OTIS). Copyright by OTIS, June 28, 2023.

Don't Stress Me Out: Post Traumatic Stress Disorder (PTSD) and Pregnancy

"I can't get rid of it fast enough!" Caroline was 5 months pregnant and at her wits end when she contacted MotherToBaby. "My migraine is so bad that I can barely get out of bed, but I feel like there's nothing I can do about it since I'm pregnant. I don't want to harm the baby!" We often get questions like Caroline's from women planning a pregnancy or already pregnant who would like information on the prevention and treatment of migraine headaches, so I start by asking Caroline what she would have used if she weren't pregnant. Caroline told me that she would have taken ibuprofen and or sumatriptan.

Migraine preventions and treatments fall into three basic categories:

- **Over the counter remedies** such as aspirin or other NSAIDs, or acetaminophen with or without caffeine.
- **Prescription medications** such as opioids, various anticonvulsants, triptans, tricyclic antidepressants and beta blockers.
- **Alternative therapies** such as Botox or other nerve block injections, massage therapy, acupuncture, high doses of magnesium, or essential oils.

Most women have tried more than one therapy that has failed before they find one or a combination of products that will work for them. Migraines can be very debilitating, so the thought of having to go without a prevention or treatment that works can be very anxiety producing. Yes, it is true that some women find that their migraines disappear during pregnancy, but in others, they become more frequent. Having a plan for prevention and treatment, just in case, is necessary. We can help with the development of that plan by providing migraine sufferers with evidence-based information about the safety of various treatments during pregnancy (and also while breastfeeding!). Below is a brief summary of many common migraine medications and treatments, but we encourage you to visit our [Fact Sheets](#) or [contact our experts](#) for more detailed information.

Over the Counter Remedies

Typically, non-steroidal anti-inflammatory medications like aspirin, **naproxen** and **ibuprofen** are not recommended in pregnancy.

Acetaminophen alone does not always provide relief for a migraine, but its use should not be of great concern depending on how much or how often it is needed.

Caffeine can sometimes be added to enhance the relief of a migraine in some individuals. Typically, such doses of caffeine are not expected to create an increased chance for adverse pregnancy outcome. For further guidance on caffeine, see our [fact sheet](#).

Other over the counter remedies that fall into the herbal or supplement categories are also not recommended since they are not well regulated or studied for safety. See our fact sheet on [herbal supplements](#).

Prescription Medications

Many women find that over-the-counter products are not helpful enough and turn to healthcare providers for prescription medication relief. Prevention of the headache in the first place is key for some.

Beta blockers have been around a long time and used daily for migraine prevention in some individuals. Studies do not suggest that their use in pregnancy is high risk. See our Fact Sheets on [metoprolol](#) and [propranolol](#) for additional information.

The tricyclic antidepressants, such as **amitriptyline** and **nortriptyline**, are older drugs that have been successful in some at the prevention of migraine headaches when used daily. They too have not been found to be high risk products when used in pregnancy.

Other medications such as certain anticonvulsants have been used to prevent or reduce the severity or frequency of migraines. However, these medications have more complex concerns when used in pregnancy. The chance for complications in pregnancy must be individually and carefully weighed against the benefits of keeping migraines in check.

The “triptan” products were designed specifically to treat migraine headaches and include **sumatriptan**, **rizatriptan**, **frovatriptan** and **naratriptan**. As the “triptan” medication that has been around the longest time, sumatriptan has relatively reassuring data on use during pregnancy.

Opioids are used to treat the extreme pain caused by migraines. While they are not typically found to cause a significant increased chance for birth defects, regular use can create problems later in pregnancy or after birth. In some cases, their use may cause rebound headaches and therefore create more need for treatment.

Alternative Therapies

Migraines can be really difficult to prevent or treat, and some women turn to alternative therapies. **Botox, bupivacaine, or lidocaine** injections have been used as nerve blockers to treat migraines. However, it may not be best to try these out for the first time during a pregnancy.

Some non-pharmaceutical options include massage therapy and **acupuncture**. Your healthcare provider may be able to refer you to someone who has experience implementing these treatments with pregnant women.

Essential oils are used topically or in a diffuser. Be careful not to ingest any. If you are nursing or have an infant, be sure not to leave oils on your body where they might accidentally ingest them.

We have had questions about the use of high doses of magnesium to curb migraines. We cannot recommend this option and suggest that you seek out the advice of your healthcare provider to determine if such treatment would be helpful or wise.

The Takeaway

I gave Caroline a summary of what is known about her usual migraine treatments, and suggested she have a conversation with her healthcare provider to discuss a safer alternative to ibuprofen and whether her provider would suggest any other changes to her treatment plan. The bottom-line is the benefits of some treatments may outweigh the risks of not treating migraines. A healthy mama from toe to head (especially a pain-free head) is best for baby too.

Questions? Call 866.626.6847 | Text 855.999.3525 | Email or Chat at [MotherToBaby.org](https://www.MotherToBaby.org).

Disclaimer: MotherToBaby Fact Sheets are meant for general information purposes and should not replace the advice of your health care provider. MotherToBaby is a service of the non-profit Organization of Teratology Information Specialists (OTIS). Copyright by OTIS, June 28, 2023.

Don't Stress Me Out: Post Traumatic Stress Disorder (PTSD) and Pregnancy

"I just found out I'm pregnant. Can I keep drinking my energy shake in the mornings?"
"My doctor gave me the go-ahead to work out. Okay to have a protein shake after the gym?"
"My immunity-boosting drink is a life-saver. Can I keep using it while I'm pregnant?"

These are common questions during pregnancy, and ones that we hear a lot at MotherToBaby. Perhaps you've wondered the same thing yourself. As teratogen information specialists, we provide facts about how a woman's exposure in pregnancy might affect her developing baby. So, when we get questions about shakes, powders and other nutritional supplements in pregnancy, we look to the research. And that research, or lack of it, leads us to caution women against drinking that favorite nutritional shake while they're pregnant. Here's why:

Lack of FDA approval

Nutritional shakes and powders fall under the category of "supplements." Supplements aren't approved by the U.S. Food and Drug Administration (FDA) in the way that food and medicines are. The FDA does set out safety requirements for supplements, but the manufacturers are responsible for ensuring that their own products meet those requirements (kind of like a home builder inspecting their own house.) This means that shake makers and other manufacturers can put their products on the market without proving their safety, or even showing that the products actually do what they claim they will. Once a supplement is on the market, the FDA relies mostly on consumers' reports to alert them of side effects or other problems that could lead to warnings or recalls.

This is not to say that all supplement makers are unscrupulous or careless. Many manufacturers go above and beyond the FDA requirements for safety, and stand behind the purity and efficacy of their products. But the lack of oversight has allowed supplements to wind up on shelves despite being contaminated with bacteria, pesticides or heavy metals (such as lead), or having mislabeled ingredients or amounts of those ingredients. These inconsistencies can be dangerous, especially for people who take medications that might interact with unknown ingredients, or for pregnant women who need to avoid potentially harmful additives that can affect the baby.

Lack of studies in pregnancy

Nutritional shakes often contain vitamins, herbs, plant derivatives and other goodies intended to boost energy, strengthen immunity or have other positive health effects. But these additives are often listed on the label as "herbal blends" or "proprietary blends," meaning that the individual ingredients are not revealed. And even if they are listed individually, some of those ingredients may have been studied in pregnancy, while others have not. The lack of studies means we don't know if they might have harmful effects on a developing baby or otherwise increase risks in pregnancy.

For example, some ingredients may be "generally recognized as safe (GRAS)" when eaten in the amounts usually found in food, but they could increase the risk of miscarriage when used at high concentrations in pregnancy. The concentration of a plant-derived ingredient can vary from batch to batch, depending on the growing and harvesting conditions of the plant. So in the end, you can't be sure what you and your developing baby are getting with that shake.

Nutritional needs in pregnancy

A varied, healthy diet along with a daily prenatal vitamin recommended by your healthcare provider should give you all the vitamins, minerals and other nutrients that you and your growing baby need during pregnancy. Adding the extra vitamins found in that shake to your diet might result in exceeding the daily recommended amounts for pregnancy. On the flip side, if you are using a nutritional shake as a meal substitute, you might be missing essential nutrients that you and your baby should be getting from food. Always talk to your healthcare provider about the best way to meet your specific nutritional needs during pregnancy.

So, what to do about that container of protein powder sitting in your pantry or those bottles of energy shake taking up

space in the fridge? Our advice? Find a new home for them until after you've delivered and are no longer breastfeeding. After all, you want to give your pregnancy a "fair shake," right?

References:

- Natural Products Database, adapted from The Review of Natural Products. Facts & Comparisons (database online]. St. Louis, MO: Wolters Kluwer Health Inc.; 2012.

- U.S. Food and Drug Administration. **FDA 101: Dietary Supplements.**

<https://www.fda.gov/Food/DietarySupplements/UsingDietarySupplements>

- U.S. Food and Administration. **Daily Values for Infants, Children Less Than 4 Years of Age, and Pregnant and Lactating Women.**

<https://www.fda.gov/food/dietary-supplements-guidance-documents-regulatory-information/dietary-supplement-labelin-g-guide-appendix-c-daily-values-infants-children-less-4-years-age-and>

Questions? Call 866.626.6847 | Text 855.999.3525 | Email or Chat at [MotherToBaby.org](https://www.MotherToBaby.org).

Disclaimer: MotherToBaby Fact Sheets are meant for general information purposes and should not replace the advice of your health care provider. MotherToBaby is a service of the non-profit Organization of Teratology Information Specialists (OTIS). Copyright by OTIS, June 28, 2023.

Don't Stress Me Out: Post Traumatic Stress Disorder (PTSD) and Pregnancy

Maya has been a healthy, happy vegan since she was a teenager. Now, at age 25 and pregnant for the first time, she is suddenly worried and uncertain about whether she can provide all the nutrients her developing baby needs if she continues to follow her vegan diet during pregnancy. She contacted us at MotherToBaby looking for answers. Maya's question is not unusual, but since it's a bit outside our area of expertise, I enlisted the help of an expert in maternal nutrition to help answer it.

Registered dietitian Kerry Jones, MPH, RDN, LDN is the owner of **Milestones Pediatric & Maternal Nutrition** in Cary, North Carolina. She works with women who are trying to conceive, pregnant, or breastfeeding, as well as children, which makes her a perfect resource for this topic. Kerry was happy to weigh in on Maya's concerns and other common questions we get at MotherToBaby about vegetarian and vegan diets in pregnancy and breastfeeding.

First, what exactly does vegetarian mean? And how is vegan different from vegetarian? By definition, vegetarian means eating everything except meat, poultry, or seafood. Some vegetarians also choose to exclude eggs but consume dairy products (lacto-vegetarian), or exclude dairy but eat eggs (ovo-vegetarian). A vegan diet takes it a step further by avoiding all ingredients that come from animals, including eggs, dairy, gelatin, and honey. While these diets may seem limiting to someone who doesn't follow them, vegetarians and vegans still enjoy an abundant variety of foods. Now, on to Maya's question...

Q: Can I have a healthy pregnancy if I'm vegetarian or vegan?

Kerry Jones: Yes, you can definitely have a healthy pregnancy, even if you follow a vegetarian or vegan diet. However, that does not mean that eating during your pregnancy will be without its challenges, since there are many nutrients that are crucial to your child's development that can be hard to obtain from a plant-based eating pattern, such as vitamin B12, choline, vitamin K2, DHA, iodine, iron, and zinc, to name a few. However, with proper planning, supplementation, and support, I believe that women who are vegetarian or vegan can have healthy pregnancies.

Q: Are there any vitamins I'll need to take during pregnancy in addition to my regular prenatal vitamin?

Kerry: As I mentioned, there are several nutrients that are crucial to fetal development that are hard to obtain in a vegetarian or vegan diet. It will be important to make sure that your prenatal vitamin is high quality and contains not only enough of these nutrients, but also the best forms of these vitamins and minerals to ensure they will be well absorbed by your body (such as Methylcobalamin and/or adensylcobalamin when looking for vitamin B12). It is also important to ensure the prenatal vitamin you choose does not contain unwanted additives or nutrients (such as having both calcium and iron in the same supplement, since we know these minerals compete for absorption) and is third-party tested (since there is currently no governing organization that oversees the safety, content, purity, dosage, or effectiveness of supplements). In addition to a high-quality prenatal vitamin, it will likely be beneficial to take an algae-based DHA supplement. However, it is important to talk to your OB/GYN before starting any supplements.

Q: How can I be sure I'm getting enough protein during pregnancy if I don't eat animal products?

Kerry: That's a great question. We know that getting enough protein during pregnancy is important for both mothers and developing babies. Luckily, there are a variety of plant-based protein sources, such as: seitan, tempeh, beans, seeds, nuts, and lentils, to name a few. I recommend that all adults, including women who are pregnant, aim to have one-fourth of their plate or bowl be composed of protein sources at each meal and have a protein source at each snack. Following this meal pattern typically allows most pregnant women to meet their protein needs. However, if you are concerned about your specific protein needs during early and late pregnancy, contact a prenatal registered dietitian, such as myself, to get customized recommendations.

The biggest concern related to meeting protein needs for pregnant women following plant-based diets is ensuring they are getting the individual amino acids they need. Animal proteins are often referred to as complete proteins, which means the protein source contains all of the essential amino acids (or protein building blocks) that our body needs. However, not all plant protein sources are complete proteins. Therefore, it is important that pregnant women following

plant-based diets not only get enough protein throughout the day, but also eat a variety of protein sources to make sure they are getting all of the needed amino acids.

Q: I love my OB, but she doesn't have experience with vegetarian and vegan diets in pregnancy. Any advice?

Kerry: If you are getting push back or hesitation from your OB/GYN to support your dietary decision, it is important to remember that your OB/GYN is likely concerned that you and your baby are not going to get the nutrients that you both need during this critical period. Make sure to be an advocate for your health and beliefs to explain why you want to be a vegetarian and vegan while pregnant. Additionally, consider working with a prenatal registered dietitian to get evidenced-based, individualized recommendations on how to meet you and your baby's nutrient needs. This will help give you the support you need to meet your unique needs and give your OB/GYN the reassurance they need to feel confident in your dietary decisions.

Q: My baby is almost due. Is there anything I need to know about being vegetarian/vegan while breastfeeding?

Kerry: Yes! Just like when you were pregnant, what you eat when breastfeeding matters. This is because when you are breastfeeding exclusively you are still the single source of nutrition for your little one just like you were during pregnancy. While the levels of some nutrients in breastmilk are not affected by maternal diet, the amount of many vitamins and minerals in breastmilk is dependent on how much you consume as a mom, such as vitamin B12, vitamin K2, choline, DHA, and iodine, to name a few. Therefore, it is important to continue your prenatal vitamin or switch to a postnatal vitamin and have a plan to get the nutrients that your baby needs while breastfeeding and you need for postpartum recovery.

After hearing Kerry's feedback, Maya was relieved to know that by incorporating a few changes to her diet she could indeed have a healthy plant-powered pregnancy! If you have questions about your diet in pregnancy or breastfeeding, talk to your healthcare provider or a **registered dietitian** with expertise in maternal nutrition. And as always, MotherToBaby is here for you for any questions about exposures during pregnancy and breastfeeding.

Questions? Call 866.626.6847 | Text 855.999.3525 | Email or Chat at [MotherToBaby.org](https://www.MotherToBaby.org).

Disclaimer: MotherToBaby Fact Sheets are meant for general information purposes and should not replace the advice of your health care provider. MotherToBaby is a service of the non-profit Organization of Teratology Information Specialists (OTIS). Copyright by OTIS, June 28, 2023.

Don't Stress Me Out: Post Traumatic Stress Disorder (PTSD) and Pregnancy

Back when Zika swept the western hemisphere, the travel recommendations for women who were pregnant or planning a pregnancy were clear: avoid any areas that had a risk of Zika infection. It was fairly easy to know where those areas were, as governments and public health organizations around the world worked tirelessly to identify and report cases. World maps showing areas of risk provided clear “yes/no” guidance. Was there any doubt about who shouldn't travel where? Not really. Not back then.

But what about now? The number of reported Zika cases has fallen dramatically in recent years. However, the accuracy of reporting can vary widely from country to country, so the once-clear world map of Zika risk now appears much less well-defined.

One of the most common Zika-related questions we still get at MotherToBaby is, “How likely is it that I'll get Zika if I travel to Country X?” (Or a variation of the same: “We went to Country X. Do we **really** need to wait 3 months before we try to get pregnant?”) One resource to help answer that question is the **interactive world map** maintained by the Centers for Disease Control and Prevention (CDC) to illustrate areas with Zika risk. Visit the map now and you'll find four colors, each indicating a different level of Zika risk and the corresponding recommendations for pregnant women, their partners, and those who are planning pregnancy. Let's take a look at what each color means :

- **Red** areas have active Zika transmission. **Travelers to red areas are at risk of Zika infection.**
 - Pregnant women and their partners should avoid all unnecessary travel to red areas.
 - Couples and individuals who travel to red areas should wait at least 2 months (women) or 3 months (men) before trying to get pregnant, and have only protected sex during that wait time.
- **Purple** areas have had active Zika transmission sometime in the past, and there could still be sporadic cases. **Travelers to purple areas might be at risk of Zika infection.**

Pregnant women, their partners, and those who are planning pregnancy are encouraged to talk with their healthcare providers to make decisions about travel to purple areas. Careful consideration should be given to the risks and consequences of Zika infection in pregnancy, the nature of their travel, how much potential risk they are willing to accept, how soon they want to get pregnant (if they are not already), and any other factors specific to that individual or couple at that time.

- If pregnant women or their partners decide to travel to purple areas, they should take steps to minimize risk, including using insect repellent and considering the use of condoms for the rest of the pregnancy.
- Women planning pregnancy who travel to purple areas should also take steps to minimize risk, including using insect repellent and considering following recommended wait times before trying to get pregnant (2 months for women, 3 months for men).

There is a sub-category of **light purple**, which shows higher elevations above 6,500 feet where mosquitoes that can transmit Zika don't usually live. The chance of getting Zika in light purple areas is very low. However, be sure to consider if your travel plans would take you through dark purple areas on the way to these lighter purple zones.

- **Yellow** areas have mosquitoes that can transmit Zika, but have not had reported cases of Zika transmission. **Travelers to yellow areas are at low risk of Zika infection.**
 - All travelers to yellow areas should take precautions to prevent mosquito bites.
- **Green** areas do not have mosquitoes that can transmit Zika and have not had any reported cases of Zika transmission. **Travelers to green areas are not at risk of Zika infection.**
 - There are no Zika-related travel recommendations for green areas.

Given that many countries are included in the purple category, how does this map help you know what your risk **really** is if you travel to a purple area? The answer is that it doesn't. Purple only tells you there is **some** level of risk. Here's why purple—and we at MotherToBaby—can't be more specific:

- **Reliable data for every country around the world simply does not exist.** Since Zika virus is no longer considered a public health emergency, many resources that once helped support global data collection have moved on to other, more pressing issues.
- **The level of risk within a purple country could change without us knowing right away.** The ability of any country to quickly identify and report cases depends on resources, logistics and other factors. This means there could be delays in detecting and announcing any new outbreaks.

The bottom line is that our post-Zika-epidemic world requires that we take the health of current and future pregnancies into consideration when planning travel. Ask ourselves how much potential risk we are willing to accept when we book our vacations and business trips. Does that mean that couples and individuals who want to have children should never go to areas that ever had Zika? Not at all! But if they are currently pregnant, or are not willing or able to effectively prevent pregnancy for at least 3 months after traveling, they might prefer to visit one of the many areas where there is no known risk of Zika. (Think yellow! Think green!)

MotherToBaby is here to answer your questions about Zika or other exposures before or during pregnancy. Happy travels!

Questions? Call 866.626.6847 | Text 855.999.3525 | Email or Chat at [MotherToBaby.org](https://www.MotherToBaby.org).

Disclaimer: MotherToBaby Fact Sheets are meant for general information purposes and should not replace the advice of your health care provider. MotherToBaby is a service of the non-profit Organization of Teratology Information Specialists (OTIS). Copyright by OTIS, June 28, 2023.