

Pregnancy and Protests: Tear Gas, Pepper Spray & Other Worries

As a teratogen information specialist, I provide the most up-to-date information about exposures during pregnancy, breastfeeding, before pregnancy or in cases of adoption. Over the years, I have been asked questions about hair dye, heroin, and lots of things in between. I never thought I would be getting questions from multiple people about tear gas and pepper spray exposure during pregnancy. But here we are.

Protests happening in many cities in the United States right now are resulting in some exposure to riot control agents such as tear gas and pepper spray. Even if women who know they are pregnant do not participate in a protest, about 50% of pregnancies in the US are unplanned. This means some women who are participating in the protests may not even know they are pregnant at the time of exposure.

Common protest-related exposures that we have been asked about include:

Tear Gas

There are multiple chemicals in tear gas. It can cause tearing of the eyes, irritation of mucous membranes, cough, difficulty breathing and irritation to the skin. A common chemical in tear gas is called 2-chlorobenzalmalononitrile (also called o-chlorobenzylidene malononitrile or CS for short).

In every pregnancy, a woman starts out with a 3-5% chance of having a baby with a birth defect. This is called her background risk. Based on the very limited information we have, exposure to CS gas is not expected to increase the chance of birth defects over the background risk. A report looking at CS exposure found no major increases in miscarriages, stillbirths, or birth defects.

Pepper Spray

The active ingredient in pepper spray is capsaicin, a chemical that comes from chili peppers. Effects from pepper spray exposure can include irritation of the eyes, skin, and mucous membranes, coughing, and trouble breathing or speaking. Like tear gas, there is very limited information on the use of capsaicin in pregnancy and from what we do know, it is not expected to increase the chance of birth defects over the background risk. Please see our fact sheet on [capsaicin](#) for more information.

The Centers for Disease Control and Prevention (CDC) has more information on [riot control agents](#) such as tear gas and pepper spray, as well as tips on how you can protect yourself and what to do if you are exposed.

Trauma

Trauma can be caused by physical injury, such as being hit (by a hand or fist or by objects such as a baton or a rubber bullet) or falling. Trauma can also be psychological, which can stem from violence or from mental/emotional stress. There are individual reports of babies born with and without birth defects following trauma. Pregnancy outcomes may differ based on the type of trauma experienced and based on the severity of the trauma. Our fact sheet on **trauma** has more information.

Stress

For most of us, stress is a part of “normal” life. However, the world is anything but normal right now. While it is unlikely that stress alone will increase the chance of birth defects, being under a lot of stress over time can affect your health and well-being. Stress can increase the chance for developing conditions such as high blood pressure or depression. If you already have medical problems, stress may make them worse. If stress is causing you to have any medical problems, it’s suggested that you talk to your healthcare provider. More information about stress during pregnancy and breastfeeding can be found in our **fact sheet**.

COVID-19

As crowds gather, it’s important to practice social distancing and other safety techniques to prevent the spread of COVID-19. Please visit our MotherToBaby Fact Sheet on **COVID-19 in pregnancy** for recent information.

Of course, it’s suggested for women who are pregnant to minimize these exposures as much as possible. However, sometimes it’s unavoidable. Just know that even during these troubled times, if you have questions for us at MotherToBaby, we are here to answer them as best we can.

We’re all in this together. Please be safe out there.

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

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By Men-Jean Lee, MD, a maternal-fetal medicine physician and member of MotherToBaby's sister society, the Society for Maternal-Fetal Medicine

From gender reveal parties to pregnancy photoshoots and prenatal massage, pregnancies are being celebrated in new and sometimes extravagant ways. The travel trend of “babymoons” continues to grow in popularity and most go off without a hitch. Unfortunately, as a maternal-fetal medicine physician in Hawaii, I’ve seen my fair share of trips that do not go according to plan. If pregnant, consult your doctor or midwife, especially when flying or traveling far from home. Also keep these tips in mind if you are considering a babymoon.

Women with high-risk pregnancy issues should consult their local maternal-fetal medicine physician to discuss any medical and obstetrical issues before putting a deposit down for babymoon. And what do you do if you end up being grounded? Save the money for a really fabulous push present!

Men-Jean Lee, MD, is a maternal-fetal medicine physician and associate professor at the John A. Burns School of Medicine at the University of Hawaii at Manoa practicing at the Kapiolani Medical Center for Women and Children. She is a member of MotherToBaby’s sister society, the Society for Maternal-Fetal Medicine, the only national, professional organization specifically devoted to reducing high-risk pregnancy complications. Dr. Lee’s research interests include maternal stress during pregnancy, diabetes, immigrant healthcare, and placental biology.

- **Bring Your Medications...And Use Them**

Do you need medications that you can only get in the U.S.? Certain life-saving medications cannot be obtained in other parts of the world. Or maybe you are supposed to be checking your blood sugars if you are pregnant and have diabetes? Just because you are on holiday, doesn’t mean you can let yourself go! Stick to your carb-controlled diet and your insulin, so that you don’t end up in a hospital where there is not a medical intensive care unit.

- **Is Your Pregnancy “High Risk”?**

Are you pregnant with twins or triplets? Did you deliver any of your older children earlier than 37 weeks? If so, you are at increased risk of preterm birth. Be aware that if you go into preterm labor on the beaches of Hawaii, you might get stranded and hospitalized in paradise until the babies are born! And if they are born “premie” or prior to 36 weeks, you might need to book a hotel to stay there until the babies are big enough to fly home.

- **Don’t Fly After 36 weeks...and for Some women, Don’t Fly at All**

Are you at the end of your pregnancy? Experts recommend that most pregnant women stop flying once they’ve reached 36 weeks gestation. Air travel is not recommended at any time during pregnancy for women who have medical or obstetric conditions that may be exacerbated by a flight or that could require emergency care (e.g. a history of DVT [blood clot in a vein] or a pulmonary embolus [blood clot in the lung], stroke, heart attack, uterine cramping, leakage of fluid from the vagina, shortened cervix, or vaginal bleeding). If you have one of these conditions or if your doctor told you it’s not safe, stay close to your OB care provider and the hospital where you plan to deliver.

- **Be Mindful of Zika “Hot Spots”**

The Zika virus poses serious threats to your developing baby (for more info, see MotherToBaby's [Zika Virus Fact Sheet](#)). If your idea of the perfect babymoon is a tropical getaway, **check to see** if your destination has Zika-bearing mosquitoes. Parts of Mexico, South America, and most Caribbean islands are still on the Zika watch list. Unless you and your partner are committed to trading in your sunscreen for insect repellent or staying indoors with the windows closed, you might want to book a trip to picturesque Prince Edward Island!

- **Skip the Glass of Wine**

While in vacation mode, you may be tempted to indulge in a glass of wine, a beer, or a margarita, but don't do it. There is **no known safe level** of alcohol consumption during pregnancy. Prenatal exposure to alcohol is the leading preventable cause of birth defects and developmental disabilities. Check out MotherToBaby's [Alcohol Fact Sheet](#) for more info.

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Pregnancy and Protests: Tear Gas, Pepper Spray & Other Worries

By Ginger Nichols, Certified Genetic Counselor at MotherToBaby Connecticut

Opima aquí para el Baby Blog en español

Twelve years ago I was still blissfully 24 weeks pregnant, unaware that in a couple days I would be admitted to the hospital for two hellishly long weeks of bed rest listening to the constant beeps of the fetal heart rate monitor; feeling alone and terrified for the health of my unborn baby. My son, Lincoln, was delivered at 26 weeks, weighing only one pound. He was in the NICU in preemie diapers that were too big for him, and I was by his side for one week listening to the constant beeps, whirs, and alarms of his monitors. Sounds that will haunt me to the end of time. Lincoln died in my arms a week after he was born, and while I wasn't exactly aware of it at the time, thus began my post-traumatic stress disorder (PTSD). After grieving, my husband and I agreed to try again. We experienced several miscarriages, which were also heart breaking in similar and yet different ways from the death of Lincoln. Then, I finally had my miracle baby and gave birth to a healthy daughter. The day I brought her home from the hospital I realized

just how high my anxiety was. I wondered how I could manage without the help of the nurses. And I was terrified that she would stop breathing. 10 years later, she is still breathing fine. (I might even admit to the fact that I may still check on her once in a while in the middle of the night. And maybe, just maybe, I am considering the reality that I will still want to check to see if she is breathing even when she is off to college).

October is Pregnancy and Infant Loss Awareness Month.

I know through my work as a prenatal genetic counselor and experiences of friends and family that, unfortunately, I am not alone in facing pregnancy and infant loss. For those of you who have ever experienced a pregnancy loss or the death of a newborn, we are gut wrenchingly sorry.

We know, and research has confirmed, that women who have experienced a pregnancy or infant loss will experience many of the same grief stages that anyone does after the death of a family member. There may be some who don't understand how a miscarriage can be so upsetting, but, for those of us who have had one, we know that the moment we saw that positive pregnancy test we were already planning maternity leaves, nursery décor, baby's hair color, and colleges s/he would attend someday.

We can feel numb after a loss, but we can also feel many things, one after the other. Several strong emotions can be felt at once, such as shock and denial, sadness, grief, anger, or helplessness. However, for pregnancy loss there may be other feelings, such as feeling betrayed by our bodies (**Why couldn't I carry a term pregnancy?**), to guilt over the possibility that we did something wrong (**Was it the toothpaste I used?**). And let's not even talk about how many happy pregnant women you suddenly see **everywhere** and how the number of diaper and baby commercials seems to have **tripled** after you've lost a baby or newborn!

Women with previous losses are a vulnerable population in their subsequent pregnancies.

There is no real "normal" in grief, and we all respond to stressors in unique ways. Our pregnancy stories vary and we will experience loss and grief in individual ways; however, there are some common themes. Research has shown that women who have had any type of pregnancy loss are at risk for depression, anxiety, excessive worry, stress, sadness, and / or lack of enjoyment in future pregnancies. We may also feel guilty about the times that we do feel happy. We worry about experiencing another loss, and wonder how we would ever survive that emotional pain again.

Depression or Post-traumatic Stress Disorder during pregnancy.

Research shows that women who have experienced pregnancy or perinatal loss can be 4 times more likely to develop symptoms of depression and 7 times more likely to suffer from PTSD than women who have never experienced a

pregnancy or perinatal loss. This same research showed that most women with depression or PTSD don't receive any type of treatment. Depression during pregnancy has been associated with an increased chance for miscarriage, preterm labor, preterm delivery, low birth weight, diabetes, high blood pressure, preeclampsia (dangerously high blood pressure), cesarean section, and post-partum depression/mood disorders. Similarly, some studies looking at pregnancies in women with PTSD have suggested that there might be an increased chance for ectopic pregnancy (egg implanting in fallopian tube rather than uterus), miscarriage, hyperemesis (extreme morning sickness), high blood pressure, preterm contractions, preterm deliveries, or low birth weight.

For more information, you may also want to read the MotherToBaby fact sheet on **depression in pregnancy** found at <https://mothertobaby.org/files/Depression.pdf> or **stress in pregnancy** at: <https://mothertobaby.org/files/Stress.pdf>.

Finding healthy ways to help you feel better is important. Your health care team may be able to refer you to a local therapist who specializes in working with women who have had pregnancy losses. The earlier you seek help, the better you may do. You don't have to go through this alone. Sometimes medications can be discussed, but often therapists can help teach you coping techniques with breathing exercises, meditation, or baby safe yoga. Each person's treatment plan should be personally designed after discussion with their health care provider.

Signs and symptoms of depression.

Remember, there is no "one size fits all". Meaning signs and symptoms of depression can be different among people, and they might change over time. Most people will not have all the symptoms at once. Having a "bad" day or two now and again is normal and is not true depression or anxiety. Women with depression and or anxiety have symptoms that are present most of the time, last for at least 2 weeks or longer and make day to day life hard to enjoy.

- 1- Feeling **overwhelmed**.
- 2- Feeling **guilty** about not being able to juggle all that life is throwing at you. You feel like someone else could do better than you are doing so far.
- 3- Feeling lost or not able to understand what is happening or why or how to change it. Scared to talk about it or reach out for help out of **fear of judgement** or worse.
- 4- Feeling **angry** and short tempered or **easily irritated**. You have **less patience** than ever before and can't seem to get into check. You may resent all those around you including your spouse. Rage is a good description of your emotions on a regular basis.
- 5- Feeling **numb** or empty.
- 6- Feeling a level of **sadness** you have never felt before.
- 7- Feeling **hopeless, helpless, and weak**.
- 8- Changes in **sleep** (too much or too little).
- 9- Changes in **eating** habits (too much or too little).
- 10- Lack of **concentration** and focus.
- 11- Feeling like you are **disconnected** from everyone and everything.
- 12- Feeling like you should be feeling better - except **you still aren't feeling right**.
- 13- Feeling like **you want to escape** and run away from your life.
- 14- Feeling **suicidal** or wanting to harm yourself.

Finding brightness in a dark situation and moving toward the light.

I think one important step in recovery is to find a health care provider that you trust for your next pregnancy. My OB team would let me just sit in their office and cry, and never once did they look at their watches and make me feel like I was taking up too much of their time. I also remember that instance when I voiced my concern about being a "Nervous Nellie" since I worried about every little thing. My doctor held my hand and said, "Not so, research has shown us how mothers with pregnancy and newborn losses can develop PTSD, and we understand." For these compassionate moments, I am thankful. In my line of work, I have found that many OB teams do understand. Some OB groups are likely to allow quick ultrasound peaks for Moms to see the baby's heartbeat, which might ease some of the anxiety in future pregnancies. **MotherToBaby** can also help ease stress when it comes to questions about medications, diseases and other exposures during pregnancy.

I hope reading this blog doesn't trigger heightened anxiety, but, instead, motivates you to build an important mental health support system around

you. Be gentle with yourself, and maybe eat some chocolate. Because when life throws you a curve ball full of grief, a good support system with great listening ears and shoulders to cry on can be a comfort. Life will never be the same, but remember you are not alone and there is hope.



Ginger Nichols is a certified genetic counselor based in Farmington, Connecticut. She currently works for MotherToBaby CT, which is housed at UCONN Health in the division of Human Genetics, Department of Genetics and Genome Sciences.

MotherToBaby is a service of the international Organization of Teratology Information Specialists (OTIS), a suggested resource by many agencies including the Centers for Disease Control and Prevention (CDC). If you have questions about alcohol, medications, vaccines, diseases, or other exposures, call MotherToBaby toll-FREE at 866-626-6847 or try out MotherToBaby's new text counseling service by texting questions to (855) 999-3525. You can also visit MotherToBaby.org to browse a library of fact sheets.

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