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.

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

Tanya called in on a Monday morning. “I’m getting married in a few months and we want to start trying to get pregnant right away. What should I be doing now to have the best chance of a healthy baby?”

Preconception health and pregnancy planning present a terrific opportunity to assess a wide range of factors that can give your baby the best start. This blog will outline the things to consider, as I relayed to Tanya:

Your Personal Health

Are you generally healthy? If you already get headaches or have acid reflux, know that pregnancy can make these more frequent. Ask your doctor if the way you treat these common conditions should change once you are pregnant. Ask about your current exercise routine and if you need to alter it during pregnancy. Get checked for sexually transmitted infections because some may not show symptoms. Also discuss your medications – some should be stopped before you start trying to conceive, such as Valproic acid, leflunomide (e.g. Arava®), teriflunomide (Aubagio®), methotrexate, and isotretinoin (e.g. Accutane®) to name just a few. For others, you’ll want to weigh the risks vs. the benefits with your health provider before you conceive. Talk with your doctors now to make a plan.

Caffeine

Do you drink caffeinated coffee, tea, or soda? What about energy drinks, protein powders, or Kombucha? MotherToBaby’s fact sheet on caffeine may put your mind at ease and encourage you to think about all your beverage options.

Body Weight

Is your weight a concern? One of the best things you can do before conception is to get to a healthy weight. Women who are overweight or obese have increased risks for miscarriage, birth defects, gestational diabetes, high blood pressure and preeclampsia, and unplanned cesarean birth. Now is a good time to meet with a nutritionist or go on a

sensible diet to get to a healthy weight in anticipation of pregnancy. Once you are pregnant, continue to watch what you eat but don't try to lose weight. Weight gain is inevitable during pregnancy but guidelines from the American College of Obstetricians and Gynecologists (or ACOG, the leading professional society for OB/GYNs) advise women to gain anywhere from 11-40 pounds, depending on your pre-pregnancy weight. It's a myth that you need to "eat for two," so don't set yourself up for postpartum weight gain by eating more than you should. After delivery of an average 7-8 lb. baby, you may lose 2 lbs. in amniotic fluid, 1.5 lbs. of placenta, 5-7 lbs. in blood volume, and 2 lbs. as the uterus returns to its normal size. That could still leave you with 10 pounds of excess weight, or more if you gained more weight during the pregnancy. Some women never take off those extra pounds, and their weight creeps up with successive pregnancies and age, which can lead to pregnancy complications and chronic health problems later on. See our exercise fact sheet for more information.

Chronic Health Conditions

Do you have chronic health conditions like diabetes, high blood pressure, migraines, asthma, high cholesterol, heart conditions, varicose veins, or anemia? Do you have an autoimmune disease like Crohn's or ulcerative colitis, lupus, rheumatoid arthritis, ankylosing spondylitis, multiple sclerosis, psoriasis or psoriatic arthritis? Meet with your obstetrician for a "preconception" appointment to discuss how a pregnancy might impact your health, and how your health might affect a future pregnancy. Your specialist can provide an important opinion too. A maternal-fetal medicine specialist (MFM) is a doctor who specializes in high-risk pregnancies, and consulting with a MFM once you are pregnant could help you learn how to optimize your and your baby's health.

Mental Health

What about your mental health? If you have a history of anxiety or depression, ADHD or other conditions, ask your psychiatrist and OB about treatment, and don't make changes before you do. Many medications can be continued during pregnancy and while breastfeeding. In fact, mental health is incredibly important – for example, when a woman doesn't treat her mood disorder or inadequately treats it, some studies suggest risks for miscarriage, premature birth, low birth weight, and preeclampsia. Talk therapy is vitally important too. And if you struggle with mental health concerns during the pregnancy, you are at risk for postpartum depression. Let's face it – pregnancy and caring for a new baby is stressful, so now is the time to marshal your helpers – friends, relatives, therapists and doctors – to ensure you have enough support. Your obstetrician should ask about mental health but if not, speak up. Your doctor can be your ally here, helping you get treatment and addressing concerns related to pregnancy and postpartum mental health. And MotherToBaby can give you an overview of the research related to any prescriptions you might choose to take.

Dental Health

Have you seen a dentist lately? Oral health can impact a pregnancy, meaning that if you have swollen or bleeding gums, a toothache or an infection, it can increase risks to the pregnancy. If you need to have a dental x-ray, take antibiotics, or have local anesthesia for a dental procedure, these are generally acceptable during pregnancy, but best to complete before you get pregnant. Contact MotherToBaby for more details.

Your Workplace

Where do you work? MotherToBaby can give you information to minimize exposures in a veterinarian office, dry cleaners, salon, laboratory/hospital, imaging center, pest control service, or other business. Your occupational safety department can recommend personal protective equipment (PPE) and tell you about ventilation that may be in place to ensure workplace safety. Safety data sheets (SDS) give an overview of chemicals used in industry and are available online or at work.

Food Safety

Read up on food safety and learn how to minimize your exposure to foods that have commonly been associated with foodborne illness such as E. coli or listeria. Get in the habit of washing your fresh fruits and vegetables well. Check out other blogs on our website too.

Vitamins and Supplements

Have you started taking a prenatal vitamin? Are you getting enough folic acid? ACOG recommends that women take at least 400 mcg of folic acid before getting pregnant and at least 600-800 mcg/day once they are pregnant. This can help prevent birth defects of the brain and spinal cord. Call MotherToBaby if you want to learn the recommended daily intake for specific vitamins or minerals. In general, taking more than what is recommended is not advisable – we haven't studied how mega-doses of vitamins may impact a pregnancy. Other supplements beyond taking a prenatal vitamin are not advisable either – the Food & Drug Administration (FDA) doesn't supervise their manufacturing plants and past surveys have shown some supplements actually contain contaminants. Furthermore, we've seen instances where the label didn't match the contents of the bottle and could cause ill effects. Pregnant and breastfeeding women should avoid herbal supplements unless specifically recommended by your doctor.

Alcohol, Cannabis, and Tobacco

Do you smoke cigarettes? Do you use cannabis for medicinal or recreational purposes? Do you drink alcohol? Recent research has demonstrated that marijuana use very early in pregnancy causes changes in brain development, which could result in behavioral or learning challenges we see later in the child's life. Cigarettes increase risks for pregnancy loss, among other things. And alcohol is known to cause a variety of birth defects known as fetal alcohol spectrum disorder (FASD). We don't believe that there is a "safe" amount of alcohol which when consumed doesn't cause issues for a developing child. Now is the time to quit smoking, drinking, and using cannabis – your baby will be heathier for it. MotherToBaby can provide resources, or check with your doctor.

Vaccinations

Are you up to date on all your vaccines? Did you get a flu shot this past season? You don't want a vaccine-preventable

illness to have an impact on your pregnancy. Flu infection can increase risks for more severe symptoms, longer-lasting illness, pregnancy loss and premature delivery, which can have a lifelong impact on your baby. Flu vaccine helps prevent infection. Another benefit to vaccinating during pregnancy? Studies show the protection extends to your baby, and gives them a little extra immunity from birth until they can receive vaccines. Also good to know: some vaccines can be given and are recommended during pregnancy, like a flu shot or TDAP, but others are best given before you conceive to avoid a small risk of spreading the illness to the fetus (e.g. the measles, mumps, and rubella (MMR) vaccine, as well as the Varicella (chicken pox) vaccine) – so try to get these done at least a month before trying to conceive. Check your medical records to see the last time you received any of these vaccinations. If you don't know if you were previously vaccinated, your doctor can draw blood to check if you have immunity.

Your Pets

Do you have a cat? There is some concern in pregnancy about an infection called toxoplasmosis, which is caused by a parasite that can be found in cat feces. Read our blog for more info on what you can do to prevent this infection if you have a fur baby at home.

Other Illnesses

Do your upcoming travel plans involve travel to a warm tropical place? Check out our Zika fact sheet to learn more before you book nonrefundable tickets. In general, women will want to wait to try to conceive for eight weeks from the time of your return home; the wait time is three months if your male partner travels with you. COVID-19 is also spreading around the globe and our fact sheet can give you the latest information on whether and how it could affect a pregnancy.

Finally, your obstetrician or primary care doctor would be glad to see you for a Preconception consultation. Make an appointment to discuss your personal history and health. It's a great way to get you and your baby off to the best start.

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

As the coronavirus that causes COVID-19 continues to spread, pregnant and breastfeeding women are understandably concerned. Many of your recent calls, chats, texts, and emails to MotherToBaby have been about the virus itself and how it might affect a developing baby or breastfed infant (more about that on our COVID-19 fact sheet). But we're also hearing related concerns about how to stay safe and healthy while pregnant or breastfeeding during the pandemic. Here, we answer some of the most common questions we're getting during this uncertain time:

FAQs

Can I use supplements to boost my immunity?

We're receiving even more inquiries than usual about using supplements such as elderberry, zinc, and vitamin C to "boost immunity." Unfortunately, there is no good data to suggest that these supplements have a protective effect against coronavirus. Additionally, the use of supplements in pregnancy and lactation comes with potential concerns.

The first concern is the lack of regulation. Dietary supplements do not require the same oversight by the Food and Drug Administration (FDA) as medications do, which means that supplement manufacturers do not have to prove the safety and effectiveness of their products before they hit the shelves. Supplements may be contaminated with other ingredients (such as prescription medications or lead), and differences may be found between the amount or ingredient listed on the label and what is actually in the product.

The second concern about supplements is that usually they are not well studied for use in pregnancy and lactation. Without good research, we just don't know how something like elderberry might affect a developing baby or breastfed infant. Mega-doses of any vitamin (like the 1000 mg of vitamin C commonly found in some supplements) are of particular concern as they are much higher than what is recommended for pregnant or breastfeeding women in a single day. Generally speaking, if you are eating a healthy diet and taking a prenatal vitamin, you are probably covering all your vitamin and mineral needs. Taking additional supplements might present increased risks to your pregnancy or your breastfed baby, with no clear evidence that they would effectively boost your immunity. You can read more on our Herbal Products Fact Sheet.

Are cleaning products safe for me and my baby?

The Centers for Disease Control and Prevention (CDC) recommend cleaning and disinfecting high-touch surfaces as one way to help prevent exposure to the virus. This means wiping down doorknobs, light switches, desks, faucets, electronics, and more… but does all this exposure to cleaning products increase risks to a pregnancy or a breastfed baby?

Our previous Baby Blog on household cleaners explains that when you use cleaning products as directed, the actual exposure to your developing baby or breastfed infant is likely to be quite low. Even if you can smell the fumes, brief inhalation while cleaning generally won't allow for much absorption of these kinds of compounds into your blood. Likewise, your skin is a surprisingly good barrier that prevents significant absorption of cleaning products through the skin. Any chemicals that might get into your blood through inhalation or skin contact typically won't reach the developing baby or get into your breastmilk in any meaningful quantity. Working in a ventilated area and wearing gloves when using cleaning products can further reduce your exposure, and help prevent respiratory and skin irritation. And of course, wash your hands after cleaning.

Should I still go to my prenatal appointments?

You've read you should stay home as much as possible since this virus can spread easily from person to person. This is true, but your prenatal appointments are still important! These visits are vital opportunities for your provider to assess the health of your pregnancy and identify any issues that might affect you or your developing baby. Some healthcare providers are offering ***some*** appointments virtually (over the internet) or spreading out the time between appointments a bit longer than normal. But sometimes you will have be seen in person, especially for screenings, labs, and vaccines, such as the flu shot and Tdap vaccine that help protect both mom and baby against serious illness.

If you haven't already, talk to your pregnancy care provider about any changes to your upcoming appointments. For virtual visits, ask what technology (phone, laptop, etc.) you will need to connect with your provider, and write down a list of questions so you don't forget to ask anything. Just like a regular appointment, it can be helpful to have someone "come along" virtually to help make sure all your concerns are addressed. For in-person visits, your provider may ask that you come alone (no partner, no kids). While there, try to stay at least 6 feet away from other patients in the waiting room, wear a cloth face cover, and don't forget to wash your hands! For more prevention tips, check out guidance from the CDC here.

Why have they delayed my fertility procedure?

Many kinds of medical procedures are being put on hold as a way to help prevent the spread of coronavirus and reserve essential medical supplies for critical medical care. For this reason, the American Society for Reproductive Medicine has made the difficult decision to suspend initiation of new treatment cycles (intrauterine insemination or IUI and in vitro fertilization or IVF) for the time being. We completely empathize with anyone who gets this news. When you've been trying to get pregnant and each passing month feels like another missed opportunity, a setback like this is the last thing you want. During this difficult but necessary delay, make sure to continue practicing healthy habits like staying active, avoiding alcohol, and taking a prenatal vitamin with at least 400 mcg of folic acid every day. That way, you'll be ready to go once you get the green light that IUI and IVF treatments are back on.

I still have to go to work every day. What can I do to avoid getting COVID-19?

If you aren't able to work from home, you might be worried that going in to work could increase your chance of contact with the virus. How true this is might depend on your job situation. If you have contact with the public at work and you are pregnant or breastfeeding, you could talk to your employer about being temporarily reassigned to another role that limits your contact with other people. However, not every workplace will be able to accommodate this request.

CDC workplace recommendations for everyone include strategies such as not shaking hands, wiping down frequently-touched surfaces, limiting in-person meetings, maintaining at least 6 feet of distance between you and people with whom you need to interact, not sharing food, and of course, staying home if you are sick. In addition, CDC guidelines recommend wearing a cloth face covering when you may be near other people to help reduce the spread of the virus.

If you are a pregnant healthcare worker, be sure your employer knows you are pregnant before you provide any direct patient care to a person with confirmed or suspected COVID-19. When possible, and depending on staffing needs, management should consider limiting your exposure to these patients. This is especially true if you perform procedures with a higher chance of coming into contact with a patient's respiratory droplets (such as intubation). If you do provide care to a patient with confirmed or suspected COVID-19, be sure to follow the Infection Control guidelines for all healthcare personnel. Our fact sheet on Reproductive Hazards of the Workplace can answer additional questions about staying safe at work during pregnancy and while breastfeeding.

I'm stressed! Can this affect my pregnancy?

With the constant news stream about the pandemic, it can be tough not to feel anxious or depressed during this time. Plus, social distancing means that many women are separated from their support network of friends and family members. Add in trying to work from home with a partner and/or kids, and it's easy to see why many women are feeling stressed out! We discussed mental health and COVID-19 at length in our recent podcast episode, which you can listen to here.

One big takeaway from the podcast? Some studies suggest that ongoing stress and uncontrolled depression or anxiety during pregnancy can increase the chance of outcomes such as preterm birth and low birth weight. So, if you feel like your mental health is suffering because of this pandemic, we encourage you to reach out to your healthcare provider (maybe virtually!) to figure out the best approach for treatment. Some women can benefit from making simple changes in their daily habits (like watching less news and getting more fresh air), while others might need to use a medication to help manage their symptoms. If that's the case, MotherToBaby can share with you what is known about your particular antidepressant or anti-anxiety medication in pregnancy and/or lactation.

Whatever your concerns about COVID-19 or other exposures might be, please know that MotherToBaby is here for you with evidence-based answers. Please reach out to us with your questions. We're all in this together.

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

If you are researching prenatal vitamins, we are guessing that you might be considering a pregnancy, or you just found out that you are pregnant. How exciting! We're also guessing that you have some questions. Pregnancy does that to a woman: it makes us start questioning the safety of everything that we used to take for granted. At MotherToBaby, we answer many types of questions about exposures during pregnancy and breastfeeding. But hands down, **the most common question I'm asked about involves *prenatal vitamins*.**

Many women ask me what brand of prenatal vitamins they should take or if the brand they are currently using is the right choice. With so many different prenatal vitamins available over-the-counter and by prescription, this is a very good question. We applaud you for doing your research. You are going to be a great Mom.

Prenatal Vitamin Tips

Before delving too much further, some basic tips. The **1st tip:** We recommend that you discuss your prenatal vitamin options with your healthcare provider, since she or he will know you and your health care needs the best. As mentioned, this will review prenatal vitamins for healthy women. Some women may have medical concerns that require a different nutrient intake.

The **2nd tip** that I always mention is that it may be easier ***and cheaper*** (depending on your healthcare insurance plan) to simply ask for a prescription for prenatal vitamins from your healthcare provider.

3rd tip: Do not buy a prenatal vitamin that contains herbal ingredients. Herbal products have not been well studied for use during pregnancy and breastfeeding. They are not regulated by the U.S. Food and Drug Administration (FDA) and there are no standard recommended amounts to take. In addition, purity of herbals found in over-the-counter products can be of concern. For more information on why herbals should be avoided, please see our MotherToBaby fact sheet on Herbal Products.

Prenatal vitamins are made up of vitamins and minerals. A healthy diet is the best way to get the vitamins and minerals that your body needs. But even if we eat a healthy diet, we might fall short on some nutrients during pregnancy. Prenatal vitamins help fill in the gaps and increased needs for vitamins and minerals during a pregnancy.

There are **Dietary Reference Intakes (DRI)** to help people know how much of each vitamin or mineral they should aim to get each day.

Some vitamins and minerals also have a recommended **Tolerable Upper Intake Level** (**UL**). The UL is designed to help us know the maximum recommended daily intake for a typical healthy person.

DRIs and ULs are there to help guide us in getting enough of a good thing but also to keep us from getting too much of a good thing.

As mentioned, vitamins should not be the only source of our nutrients. Therefore, your vitamin does not need to contain 100% of the DRI. Remember to take into account all sources of the vitamin or mineral when adding up your daily intake. This means including food sources as well as any other supplements you might take. DRI values can change by age, gender, and pregnancy and breastfeeding status. If you have a medical condition, talk to your healthcare providers/dieticians for your specific dietary needs.

Research on taking vitamins and mineral supplements at levels that are higher than the DRI and UL during pregnancy are limited. Because of the lack of information about taking high levels of vitamins and minerals in a pregnancy, it is generally recommended that pregnant women do not exceed the DRI unless your healthcare provider has prescribed it for the medical management of a specific deficiency or medical condition.

Now, we come to the main question: **What are the basic vitamins / minerals generally suggested for prenatal vitamins for healthy women, and how much of each vitamin and mineral do women need for pregnancy?**

Vitamins and Minerals

For pregnant women 19 years old and older, the first 5 vitamins/minerals listed below are the basic supplements from which healthy pregnant women might benefit. The DRI and UL for pregnancy are listed. Not all items have an UL.

- **Iron**: DRI: 27 mg. UL: 45 mg.
- **Calcium:** DRI: 1,000mg. UL: 2,500mg.Supplements should have at least 250 mg, but all women should be getting at least 1,000 mg per day of elemental calcium.
- **Folic Acid (Folate)**: DRI: 600 mcg (0.6 mg) to 800 mcg (0.8 mg).At least 400 mcg (0.4 mg) should be in your prenatal vitamin.
- All women who could become pregnant should be getting enough folic acid / folate, even if they are not currently planning on a pregnancy.
- **Iodine:** DRI: 220 mcg to 290 mcg. UL: 1,100 mcg.At least 150 mcg should be in your prenatal vitamin.
- **Vitamin D (calciferol):** DRI: at least 15 mcg (600 IU). UL 100 mcg (4,000 IU).

In addition to the above suggested supplements for prenatal vitamins, pregnant women should make sure they are getting enough of the vitamins / minerals listed below. If they cannot manage this with diet, then a supplement might help.

- **Vitamin A**: DRI 770 mcg. UL 3,000 mcg.
  - Vitamin A is found in two primary forms: plant-based carotenes (**beta-carotene**) and animal-based retinoids (**retinol**, retinal, retinoic acid, retinyl palmitate, and retinyl acetate).
  - Look for vitamin A that is from beta-carotene. Beta-carotene is less likely to build up toxic levels in the body than with retinoids. In addition, high levels of retinoids (**retinol**, retinal, retinoic acid, retinyl palmitate, and retinyl acetate) have been linked to an increased chance for birth defects.
- **B Vitamins**
  - There are eight B vitamins:

- Vitamin B_1 / thiamine: DRI: 1.4 mg
- Vitamin B_2 / riboflavin: DRI: 1.4 mg
- Vitamin B_3 / niacin: DRI: 18 mg
- Vitamin B_5 / pantothenic acid: 6 mg
- Vitamin B_6 / pyridoxine: DRI 1.9 mg
- Vitamin B_7 / biotin: DRI: 30 mcg
- Vitamin B9 / folic acid (already mentioned above)
- Vitamin B_{12} / cobalamin: DRI: 2.6 mcg

- These are a group of water-soluble vitamins, which means that your body will not store them. Therefore, it would be unlikely to reach a toxic level in the body. If you and your healthcare provider feel that you are unable to meet your DRI of the B vitamins through diet, then you should look for a prenatal vitamin that includes them. All prenatal vitamins should include at least folic acid (Vitamin B_9), which I mentioned earlier as an essential vitamin for pregnancy.
- **DHA/ Omega-3 Fatty Acids:** There is no clearly defined DRI, but in 2000 it was suggested that pregnant women should aim for 300 mg/day. The best way to get these is to include fish in your diet. MotherToBaby has a blog on eating fish in pregnancy. The FDA also has a guide on which fish are the best options to eat in pregnancy by breaking the fish into categories of Best Choices, Good Choices, and Choices to Avoid. The guide can be found here. However, if you do not get enough in your diet, your healthcare provider might suggest including a supplement for DHA during your pregnancy.
- **Vitamin E**: DRI: 15 mg. UL: 1,000 mg.
- **Vitamin C**: DRI: 85 mg. UL: 2,000 mg
- **Zinc**: DRI. 11 mg. UL: 40 mg.

It is recommended to start taking prenatal vitamins before you try to become pregnant; at a minimum, take folic acid daily. If you are already pregnant, start as soon as you learn about your pregnancy.

Again, if you have a medical condition (including but not limited to diabetes, celiac disease, eating disorders, substance misuse, malabsorption, irritable bowel, inflammable bowel, or history of bariatric surgery), talk with your healthcare providers about your specific nutritional needs.

Now that you are an expert in reading your prenatal vitamin label, you can tackle (with the advice of your health

provider) selecting the one that is best for you. MotherToBaby is always available to answer questions about all exposures during pregnancy and breastfeeding. Pregnancy will bring wonder-filled moments for you and your family. MotherToBaby is here to help you and your healthcare providers to make it as stress-free as possible with up-to-date information on medications and more.

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

Kombucha: fizzy, fermented, and full of probiotics. Some people drink kombucha for its fun effervescence and wide range of fruity flavors. Others, for its alleged health benefits ranging from improved digestion to lowered blood sugar. The increasing popularity of kombucha has not surprisingly led to an increased number of inquiries to MotherToBaby about the safety of drinking it during pregnancy. Carly, a recent visitor to our online chat service, explained that she had been drinking kombucha for years, but now that she was trying to get pregnant was it okay to keep drinking it? Great question! I'll share here what I talked about with Carly.

But first, what is kombucha? Kombucha is a sweetened green or black tea fermented with a symbiotic colony of bacteria and yeast, otherwise known as a SCOBY. Symbiotic means that the bacteria and yeast work together in balance. If you've never seen a scoby, let me give you a visual: a pale, rubbery, gelatinous disk vaguely resembling some sort of extraterrestrial organ. Not something most people would find appetizing from the get-go! But once the scoby is added to sweetened tea and left to ferment for a period of weeks, the result is a tangy, bubbly beverage that is slightly alcoholic, which brings me to the first consideration I discussed with Carly about drinking kombucha in pregnancy.

Kombucha and Pregnancy

Alcohol

Kombucha contains alcohol as a natural by-product of the fermentation process. In the United States, beverages containing 0.5% or more alcohol by volume (ABV) are required to have a label that includes a health warning for pregnant women. Varieties with lower alcohol content (less than 0.5 % ABV) are not required to have the label. Nevertheless, the non-labeled varieties still contain alcohol. For non-pregnant women, these small amounts of alcohol do not have a known risk; but in pregnancy, the advice of major medical organizations is to avoid alcohol altogether. Especially since the alcohol content of kombucha is not always clear-cut.

Most of the time, the manufacturing process can stabilize kombucha after it is bottled. However, kombucha has been pulled from shelves in the past after it was discovered that fermentation in the bottle did not stop, increasing the alcohol content above the amount that would require the pregnancy-warning label. And determining the alcohol content of homebrewed kombucha is difficult. Homebrews can reach as high as 3% or more depending on the type of yeast used in the scoby, how long and at what temperature the tea ferments, and other factors.

The best way to avoid unnecessary alcohol exposure in pregnancy is to not drink kombucha for those 9 months. And what about during breastfeeding? If you do enjoy an "alcohol-free" kombucha from time to time, the small amount of alcohol it might contain is unlikely to have a negative effect on your infant. Yet waiting a couple of hours after drinking the kombucha before nursing again will allow time for your body to metabolize the alcohol from your blood and breast milk.

Bacteria

Another concern about drinking kombucha in pregnancy is the possibility of bacterial contamination. Using proper sterile techniques can reduce harmful bacteria in the product, but the best way to eliminate any bacteria that might grow during the long fermentation process is to pasteurize the beverage with a quick heat treatment before bottling. Kombucha purists may argue that pasteurization destroys the probiotics responsible for the health benefits that kombucha may provide. However, unpasteurized products are not recommended in pregnancy due to an increased chance of foodborne bacteria such as listeria and salmonella, which can cause pregnancy complications. Unpasteurized products to avoid include certain milk and dairy products, and yes, fermented foods and beverages such as kombucha.

Homemade fermented foods carry an even greater risk of growing foodborne bacteria since the sterilization methods used at commercial facilities are not available in one's own kitchen. So when it comes to fermented products in pregnancy, store-bought selections that are pasteurized are the safest way to go. This means avoiding "raw" or unpasteurized kombucha, as well as homebrewed varieties.

Caffeine

A final consideration I discussed with Carly was caffeine. The general recommendation in pregnancy is to limit caffeine to about 200 milligrams (mg) per day. The caffeine content of kombucha can vary based on the type of tea used to brew it, and may fall somewhere in the 15-130 mg range. When calculating how much caffeine you're taking in, consider all potential sources including coffee, tea, soft drinks, and chocolate. The MotherToBaby fact sheet on caffeine lists the amounts found in some common products, and can be helpful for tallying up your daily intake (be sure to also check your product labels). For example, if you already drink a cup or two of regular coffee in the morning, a bottle of kombucha might put you over the recommended amount of caffeine for the day.

If breastfeeding, keep in mind that caffeine passes into the breast milk and can cause some babies to be irritable or have trouble sleeping. While you might not need to avoid caffeine altogether while breastfeeding, limiting the amount you take in can up the chances of a good night's sleep for both you and baby.

In the end, Carly decided that foregoing her beloved brew for the duration of her future pregnancy would be in the best interest of her developing baby. In the meantime, she'll opt instead for water to stay well-hydrated, and for carbonated fruit spritzers and juices when she gets a craving for the uplifting fizz that kombucha provides. Cheers to that, Carly!

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