Maternal Alloimmunization: Protecting My Baby from My Body

A Guest Blog by the Allo Hope Foundation's Bethany Weathersby

I grew up in a large family, loving both the chaos and the built-in friendships that came with having four siblings. My mom had five normal pregnancies and five healthy children, and I always (naively) assumed my experience would be the same.

Seven weeks ago my dream of having five kids — just like my mom — became a reality when I delivered my fifth living child, a beautiful 8-pound boy we named August. But while my mom's path to five children was smooth and uneventful, my journey to five kids was painful, rocky and tumultuous. I found myself faced with a question I never expected I would have to answer: what do I do when my baby is attacked by my own immune system?

The Diagnosis

My first two pregnancies were free of complications as I carried and birthed two healthy boys, Liam and Asher. It was when I was 9 weeks pregnant with my third child — our first girl — that my obstetrician gave me the news I was not expecting. My first trimester blood work came back positive for anti-Kell (or anti-K) antibodies, and I now had a condition called maternal alloimmunization.

Maternal alloimmunization, commonly known as Rh disease or isoimmunization, occurs when a woman makes red blood cell antibodies after being exposed to a blood type different from her own. This exposure to a foreign blood type usually occurs during a blood transfusion or a previous pregnancy. The woman's immune system views the foreign blood as a threat and creates antibodies to destroy it. This can be a serious problem if the woman becomes pregnant with a baby who has the offending blood type. In these cases the antibodies can cross the placenta in the second or third trimester and destroy the baby's red blood cells. This is called hemolytic disease of the fetus and newborn (HDFN). HDFN can have devastating consequences for the baby, including anemia, fetal hydrops and even death.

I knew about the more common anti-D antibodies or Rh disease, which can be prevented with the administration of Rhogam, but I had never heard of anti-Kell antibodies. Anti-Kell is one of the many other red cell antibodies that are similar to anti-D, but cannot be prevented. The more I learned about my diagnosis, the more discouraged I became. I realized that while my body was growing and nurturing my daughter, it was simultaneously trying to destroy her. I felt desperate to protect her from my antibodies.

Options and Questions

I immediately began researching treatment options. I learned that women with red cell antibodies should be closely monitored and treated by a maternal fetal medicine (MFM) specialist. Antibody titers show how many antibodies are in the mother's blood. Titers are checked regularly until they reach the critical level. Once titers are critical it means that

there is a risk of the baby developing severe fetal anemia. The baby can be monitored for anemia by special ultrasounds called MCA doppler scans. These scans measure how quickly the baby's blood is flowing through the middle cerebral artery in the brain. If it is flowing too quickly, the doctors know the baby is anemic and in need of a blood transfusion. Blood transfusions can be done in utero if the baby becomes anemic before birth.

The critical titer for Kell is 4. My titer was 1,024 right from the start of the pregnancy. My husband and I were terrified thinking through the possibilities.

I was referred to an MFM an hour away. In the online research I'd done to try to understand my diagnosis, I came across information about treatments called plasmapheresis and IVIG. These treatments had been used in severe cases to protect the baby from the mother's antibodies until the fetus was big enough for an intrauterine blood transfusion.

I printed off a copy of the study I found showing the efficacy of the treatments and brought it to my MFM appointment at 16 weeks. I asked if we should start the treatments to protect my baby in case she was becoming anemic. The MFM said the treatments were unnecessary and considered experimental. He also explained that they would not be checking the baby for anemia until further along in the pregnancy because nothing could be done to help anemic babies before 20 weeks. The smaller the baby, the more difficult and dangerous intrauterine blood transfusions are.

I left my appointment feeling uneasy, not knowing whether or not my baby was anemic. My mind buzzed with anxiety as I thought through my unanswered questions. I had read other women's accounts of successful intrauterine blood transfusions as early as 16 and 17 weeks gestation. Why did my doctors think that nothing could be done for my baby before 20 weeks? Why couldn't we be proactive and try the plasmapheresis and IVIG treatments I had read about online?

My fears grew day by day as I worried about my baby girl. I wanted to know exactly what was happening inside my body. Was my daughter safe and thriving? Or was my womb an unseen battleground where she fought for her life, unaided by all of us here on the outside?

I finally convinced my MFMs to do an MCA scan at 18 weeks to check our baby for fetal anemia. The results were devastating. The scan confirmed that our girl was extremely anemic and had started to develop fetal hydrops as a result. Our MFMs were not very hopeful about the outcome since the anemia was already so severe. They attempted an intrauterine blood transfusion the next day, but our little girl, Lucy Dair, died a week later at 19 weeks gestation.

Grief

Lucy was beautiful. She weighed one pound and was 9 inches long. My husband and I were completely overcome with grief. There is no pain in the world like losing a child.

To make matters worse, we not only lost our beautiful daughter Lucy; we also lost our hopes for future children all in one day. We were told that we could not have any more biological children since the antibodies tend to become more aggressive with each subsequent pregnancy.

Trying Again

Even after the doctors warned us of the dangers of future pregnancies, I could not let go of my dream for a big family. Five kids. How could we try again knowing that my own immune system would attack and possibly kill my next baby? I felt guilty for still wanting to grow my family despite having two living children while desperately wishing for better treatment options for alloimmunized women.

The plasmapheresis and IVIG treatments that we hadn't tried during my pregnancy with Lucy kept coming to mind. Could they be effective in a future pregnancy?

After many months of research, discussion and prayer, my husband and I decided to try again for another baby. This time we had a plan: we would use a different team of MFMs in a different state, and we would start plasmapheresis and IVIG treatments early in the pregnancy. Intrauterine blood transfusions can actually be done as early as 15 weeks so we would start weekly MCA scans at 14 weeks to monitor for fetal anemia.

We traveled 11 hours to Houston, Texas to find an MFM who was an expert on alloimmunized pregnancies. It turns out many women have to travel to other cities, states and sometimes even other countries in order to find MFMs who have experience treating alloimmunization and HDFN.

Our new team of doctors was extremely cautious and proactive, monitoring the baby carefully week after week. Our hope grew as the treatments seemed to be working, and, we found out we were having another baby girl.

The treatments kept her safe from my antibodies until 24 weeks when she became anemic and needed her first intrauterine blood transfusion. In total, our daughter had five intrauterine blood transfusions and was born healthy at 38 weeks. We named her Nora Juliet, our little light bringing joy back into our family. But she was also a reminder of the outcome that we could have had with Lucy if we had received the same care during my first alloimmunized pregnancy.

We went on to have two more little boys with the help of plasmapheresis and IVIG treatments as well as the help of our incredible MFMs. Our third son, Callum, had 3 intrauterine blood transfusions and was born at 34 weeks and our fourth son, August, was born at 37 weeks after seven intrauterine blood transfusions.

Hope and Advocacy

Over the years I have become an advocate for other women around the world who are facing alloimmunization and HDFN. I have seen familiar stories play out in their families: the shock of the unexpected complication, the terror that comes with a new diagnosis and the fear of not knowing how to protect their children.

Unfortunately, due to the rarity of alloimmunization and the variation in care practices around the world, well-managed pregnancies and ideal infant outcomes are not universal, but I have hope that they can be. Treatment options are improving for families facing alloimmunization. New clinical trials are underway to hopefully provide less invasive treatments for babies threatened by HDFN. In 2019, I started a non-profit organization called The Allo Hope Foundation in order to bring awareness to the disease and provide support and education to families facing alloimmunization and

HDFN.

If I could go back in time to the moment I first learned about my antibodies and if I could tell myself anything it would be this: You are your baby's best advocate and you have to be her voice. With the right medical care there is hope for your baby and it is up to you to find the doctors who will provide that care. Research, learn and speak up. These antibodies do not have to determine the size of your family.

To learn more about maternal alloimmunization and HDFN visit https://allohopefoundation.org.

Maternal Alloimmunization: Protecting My Baby from My Body

Sometimes we have anxiety about…well, having anxiety. Kristen contacted MotherToBaby and was asking about ways to manage her already extremely high anxiety around pregnancy and birth during the pandemic. Should I even try to get pregnant right now? How will I deal with my anxiety and stress if I do become pregnant? What if almost no one in my family can even come to the hospital when I go into labor? How can I deal with my anxiety during labor and birth? I could tell she had a tremendous amount on her mind.

It is completely normal to feel stressed and anxious, and Kristen is not alone. Many people, regardless of whether they are pregnant during the time of COVID-19 or not, are experiencing higher levels of anxiety. The important thing is to address the anxious feelings and learn ways to manage them. I have some ideas on how to do just that! But one thing I need to emphasize: if your anxiety is excessive, ongoing, difficult to control, and interferes with your daily living, this may be a sign of generalized anxiety disorder and I encourage you to talk to your doctor or a mental health

professional.

Managing Anxiety

There are ways to manage anxiety and stress that may be commonly shared, but in case you haven't heard them before below are some tips you can try at home:

- Exercise, even if it is going for a brief walk outside
- Call a friend just to catch up
- Volunteer or donate to a cause you care about – often doing things to help others actually can make you feel good
- Try to eat healthy, nourishing foods
- Journal as a way to express what you are feeling
- Take a break from your screen time on phones, tablets and TV – especially before bed
- If you feel like nothing really helps to address your feelings of anxiety and stress, or if you are feeling really down, make an appointment to talk to your healthcare provider and be honest about how you're feeling

If you do feel like you need to talk to your healthcare provider, how do you do it? Remind yourself that healthcare providers are not only trained to talk about mental health topics with their patients, but that they likely talk to multiple people every day or week about them. Sometimes pregnancy increases anxiety that is already present, and for others it may be that they are experiencing it for the first time. Being pregnant does not mean that you are immune from or that you cannot be treated for mental health issues.

Before you go to see your healthcare provider, you can write down some notes on what you hope to say. Try to be as honest as possible and ask about the variety of options you have to address your anxiety or symptoms, including what you can try at home, who you may be able to see for some form of talk therapy, and if necessary, what medications the provider may recommend trying. Remember, just because you bring up anxiety or mental health, it does not mean you will be put on a medication. Equally as important, if you need to take a medication to help you manage better, there are several options you can take during your pregnancy.

Working on dealing with your anxiety before becoming pregnant is always a great idea, but you can address it at any point during pregnancy or in the postpartum period. There is never a bad time to improve your mental health (doing so is not only good for you, but also good for your baby) and it is never too late. In addition, I have had women express that admitting they need help makes them feel weak or selfish. In truth, it is the opposite – it takes courage to ask for support when we need it!

COVID-19, Labor and Delivery

The other piece of Kristen's worry was having support in the delivery room. Due to COVID-19 many hospitals and birthing centers may be reducing the number of support people someone can have present during delivery. In addition, no one may be allowed in nearby waiting rooms. Giving birth can be one of the most challenging events for a person and having support during labor and delivery is incredibly important for getting through it with both a healthy mom and a healthy baby. First, you should speak with your planned delivery hospital/center to learn what their most

current rules are for time of delivery and ask about any extra precautions they are taking due to COVID-19. Once you have that information, you can figure out what your game plan is. Other things to consider include:

- Does the hospital offer doulas? Would you want to hire your own? If you hire one and s/he is not allowed in the delivery room, can she call in and be there via facetime and text? Can she spend extra time going over pain management techniques with you and your support partner in advance if she is unable to be there herself?
- You can also consider programs like Hypnobirthing or Lamaze classes that really work with women to be confident in managing their experience during labor and delivery. Sometimes the type of prenatal education you choose to receive can help you feel more prepared and aware of what to expect, which alone may help reduce fear of the unknown.

In short, try not to panic with all of the questions you may have about dealing with anxiety. Write down your questions and make sure to ask your healthcare provider and the place you plan to deliver all of them. Prepare for what you can, take care of yourself, ask for help when you need it and trust that you have the strength to get through anything – because you do.

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If you are an athlete and/or have a physically active lifestyle, you may have wondered: 'Should my exercise routine change during pregnancy and breastfeeding?' As a former division 1 athlete and now teratogen information specialist, I sure have. You may have seen news reports about professional athletes who trained and competed at the highest

level at least for some time during or shortly after their pregnancies. Serena Williams won the Australian Open while 8 weeks pregnant; Alysia Montano ran the 800 meter race at a national meet in her third trimester and Allyson Felix won a gold medal at the World Championship in track only 10 months postpartum, breaking the world record for number of gold medals won at world championships. At the same time, you may hear concerns that vigorous/strenuous physical activity can be harmful to a pregnancy. So, what is really recommended for pregnant women who have a very physically active lifestyle?

Intense Exercise and Pregnancy

Benefits of Exercise

In general, exercise is an essential element of a healthy lifestyle and is encouraged during pregnancy as a component of optimal health. Women who frequently engaged in high-intensity aerobic activity or who were physically active before pregnancy can continue these activities during and after pregnancy. Studies show many benefits: it reduces the risk of excessive weight gain, preterm birth, low birth weight, risk of C-section and developing diabetes and high blood pressure during pregnancy. Additionally, physical activity can also help with the aches and pains of pregnancy and reduce the risk of postpartum depression. Concerns that physical activity may cause miscarriage, preterm delivery or growth problems have not been proven for women with uncomplicated pregnancies.

While exercise during pregnancy is associated with minimal risks, some changes to your routine may be necessary because of normal body changes during pregnancy. Consult with your healthcare provider to determine if/how you need to adjust your exercise routine. This is even more important for women who have pre-existing health conditions.

Level and Duration of Activity

It's important to listen to your body during pregnancy. Every pregnancy and every pregnant woman is different. The body goes through many changes during pregnancy: blood volume increases, your heart pumps harder, heart rate increases and aerobic capacity (fitness level) decreases. Additionally, many women experience nausea and fatigue throughout their pregnancy making it difficult to maintain prior exercise levels, not to mention proper nutrition and hydration. Listen to your body and don't push it past its limits.

It's difficult to compare vigorous/strenuous exercise between individuals. Jogging 10 miles may seem like a piece of cake for a marathon runner but could be extremely difficult for an Olympic lifter. For this reason, 'vigorous' activity is most frequently defined as up to 85% of capacity. While maximum effort is difficult to measure, capacity is often described in terms of maternal heart rate.

Another way to check your intensity level is the "talk test." If you're breathing hard but can still have a conversation easily—but you can't sing—that's moderate intensity. An activity would be considered vigorous if you can only say a few words before pausing for a breath.

If you were in the habit of doing vigorous-intensity exercise or were physically active before your pregnancy, vigorous exercise appears to be ok for most healthy women. However, there is limited information on individuals who exceed the accepted 85% capacity and an upper level of 'safe' exercise intensity hasn't been established.

In general, it is recommended to exercise 30-60 minutes 3-4 times a week to up to daily.

What to Consider When Exercising

- Stick with what your body is used to. If you are used to long-distance running, pregnancy is not the time to turn into a power lifter and vice versa.
- Stay hydrated. Drink plenty of fluids before, during and after exercising.
- Avoid overheating. Even if you are used to exercising in 90-degree heat with 70% humidity, you may have to look for an alternative method such as air-conditioned gyms. Don't use steam rooms, hot tubs, and saunas.
- Avoid exercises that call for you to lie flat on your back in the second and third trimester of your pregnancy because this allows less blood flow to your womb.
- Don't engage in sports where you could fall or get injured, or sports where you might get hit by a fast ball.
- Reduce weight load. There is limited data on the effects of resistance training (e.g. weightlifting) on pregnancy. There is a concern that holding your breath during heavy lifts can possibly result in baby's heart rate slowing down. Because of this, you may have to reduce the resistance load.
- Allow enough time for your body to recover after each training session.
- Make sure you have enough caloric intake. If you regularly participate in vigorous-intensity exercise, you will likely have to adjust your caloric intake to allow for appropriate weight gain for your pregnancy.
- Continue to fuel your body. Prolonged high-intensity exercise can result in low blood sugar. Make sure you fuel your body if you plan on exercising over 45 minutes.
- Check with your healthcare provider before continuing any supplements such as pre-workout protein shakes. Also, see our MotherToBaby blog on this topic.
- Stop exercising if you feel dizzy, have a headache, develop chest pain, have calf pain or swelling, have muscle cramps, or you experience vaginal bleeding, leakage of fluid, contractions or shortness of breath before exertion. Call your healthcare provider with any concerns.

Postpartum and Breastfeeding

In general, exercise can be resumed gradually after delivery as soon as it is medically safe – consult with your healthcare provider on when they may be. This may depend on mode of delivery (c-section vs. vaginal birth) and any additional health problems or complications. When exercise can be resumed varies among women, with some being able to start exercising within days after delivery.

Regular exercise has not been shown to affect breast milk production or quality and hasn't been shown to affect baby's growth either. It is extremely important to remain hydrated during breastfeeding, especially when regularly exercising. All women who are breastfeeding should also focus on the correct amount of caloric intake which may vary depending on level of activity.

Bottom line is, we are all different athletes and will all have different needs during pregnancy and the postpartum period. There is no 'one-size-fits-all' recipe for vigorous exercising during pregnancy. The best things you can do are to consult with your healthcare provider frequently and listen to your body. For more information, see our MotherToBaby Fact Sheet on exercising. You can also find some information on which foods/drinks to limit/avoid, the appropriate

amount of weight to gain, and the recommended amount of exercise here.

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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.

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The holiday season was in full swing when Katie found out she was pregnant. She called me and wanted to know if she could continue to take Zoloft (or sertraline), the medication she was prescribed to treat her depression. The idea of coming off of the medication scared Katie, just as much as the idea of taking something that could affect her baby did. Katie also had been feeling a bit more exhausted and down than usual, possibly due to both her pregnancy and to a case of the holiday blues. 'Tis may be the season to be jolly – but it is also a time when emotions (and stress levels) can run high.

Reasons for the Holiday Blues

Some of the most common reasons that people feel extra stress during the holidays include money, family, traveling, over-committing to attending events, and for some, the inability to spend time with their loved ones. Being pregnant can add another layer of anxiety to an already hectic time. Though the season is always presented as a time filled with joy, it can certainly take a toll on people's mental health. It is important to note that when depression is left untreated during pregnancy, there may be increased risks for miscarriage, preeclampsia, preterm delivery, low birth weight, and a number of other harmful effects on mom and baby. See our fact sheet on depression and pregnancy. It's also important during pregnancy to not stop (or start) taking any medications without first talking with your health provider. Whether or not a woman continues to take a medication throughout her pregnancy will depend on the benefits of taking the medication versus any possible risks associated with the medication. For that reason, I suggested to Katie that she should speak with her healthcare provider about whether or not continuing to take sertraline is in her best interest given her particular health history and pregnancy.

Mental Health & SSRIs

I then reviewed with Katie everything that we know about sertraline use during pregnancy. Sertraline has been one of

our most viewed fact sheets on MotherToBaby.org in recent months, and is in a class of medications called SSRI's, or selective serotonin reuptake inhibitors. A small number of studies have found associations between sertraline use during pregnancy and particular birth defects, such as heart defects. However, the majority of the studies looking at over 10,000 pregnant women, have found that women taking sertraline during pregnancy are not more likely to have a baby with a birth defect than women not taking the medication. Overall, the available information does not suggest that sertraline increases the chance for birth defects above the 3-5% background risk that is there for every pregnancy. We have a wonderful fact sheet on this medication that you can view here. We also have a mental health web page where you can see links to fact sheets on other SSRI's and commonly prescribed medications for people dealing with depression and anxiety, as well as Baby Blogs on related topics. All of our fact sheets also address breastfeeding, so if you are in the postpartum period please also take a look or reach out to us with questions.

If you're feeling blue this holiday season, remember that it is just as important to take care of yourself as it is to care for those around you. The holidays can also be a wonderful time of year to take stock of what it is in life that you're thankful for. If you do find that you are feeling down or depressed and have been feeling this way for quite some time, seeing your healthcare provider may be a good step to take. If you are pregnant and dealing with feelings of sadness and depression, do not assume you cannot take a medication to help with your symptoms. If you are pregnant and already taking a medication for depression, don't stop taking it without talking to your healthcare provider. Always check with your health care provider before starting or stopping any medication.

The experts at MotherToBaby are always here to offer the latest information on medications in order to help you and your healthcare provider make the best care plan possible for you and baby. If you're feeling blue, make sure to reach out to a friend or family member that can remind you you're not alone, and that you are cared for. To all women and their families, here's to a healthy, happy holiday season!