The A.B.C.’s of Prenatal Vitamins

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.

Selected References:

- ACOG Nutrition During Pregnancy FAQ001. 2018.
- ACOG Committee on Obstetric Practice. ACOG Committee Opinion No. 495: Vitamin D: Screening and

supplementation during pregnancy. Obstet Gynecol 2011; 118:197. Reaffirmed 2019.

- Becker DV, et al. 2006. Iodine supplementation for pregnancy and lactation—United States and Canada: recommendations of the American Thyroid Association. Thyroid; 16:949–951.
- 2018. National Report on Biochemical Indicators of Diet and Nutrition in the U.S. Population. Center for Disease Control and Prevention.
- Council on Environmental Health. 2014. Iodine deficiency, pollutant chemicals, and the thyroid: new information on an old problem. Pediatrics 133: 1163-1166.
- 2005. Dietary Supplement Labeling Guide: Appendix C. Food and Drug Administration.
- Glinoer D. 2007. The importance of iodine nutrition during pregnancy. Publ Health Nutr; 10:1542–1546.
- Institute of Medicine (US) Food and Nutrition Board. 1998. Dietary Reference Intakes: A Risk Assessment Model for Establishing Upper Intake Levels for Nutrients. Washington (DC): National Academies Press (US).
- Natural Medicines Database. Available at naturalmedicines.com
- NIH: Nutrient Recommendations: Dietary Reference Intakes (DRI).
- Obican SG, et al. 2012. Teratology public affairs committee position paper: Iodine deficiency in pregnancy. Birth Defects Res A Clin Mol Teratol; 94(9):677-82.
- Segal K, et al. 2018. Recommending Prenatal Vitamins: A Pharmacist's Guide.
- The National Academies of Sciences, Engineering, and Medicine. Dietary Reference Intakes Tables and Application.
- Trumbo P, et al. 2001. Dietary reference intakes: vitamin A, vitamin K, arsenic, boron, chromium, copper, iodine, iron, manganese, molybdenum, nickel, silicon, vanadium, and zinc. J Am Diet Assoc 101:294-301.

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

Disclaimer: MotherToBaby Fact Sheets are meant for general information purposes and should not replace the advice of your health care provider. MotherToBaby is a service of the non-profit Organization of Teratology Information Specialists (OTIS). Copyright by OTIS, March 17, 2020.

The A.B.C.’s of Prenatal Vitamins

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.

Disclaimer: MotherToBaby Fact Sheets are meant for general information purposes and should not replace the advice of your health care provider. MotherToBaby is a service of the non-profit Organization of Teratology Information Specialists (OTIS). Copyright by OTIS, March 17, 2020.

The A.B.C.'s of Prenatal Vitamins

January is Birth Defects Prevention Month, and it's a great time to remind ourselves that there are several things that pregnant women can do to reduce their chance of having a baby with a birth defect. Our 5 tips for preventing birth defects include:

- Book a visit with your healthcare provider before stopping or starting any medicine.
- Be sure to take 400 micrograms (mcg) of folic acid every day.
- Before you get pregnant, try to reach a healthy weight.
- Become up to date with all vaccines, including the flu shot.
- Boost your health by avoiding harmful substances during pregnancy, such as alcohol, tobacco, and other drugs.

Top 5 Tips for Preventing Birth Defects

Reviewing this list of tips reminded me of a call I answered last month as a Teratogen Information Specialist at MotherToBaby North Texas. The woman calling, Beatriz, was upset and concerned. She had just found out that she was about five weeks pregnant. As she suffers from chronic migraine headaches, Beatriz was taking Valproic Acid, a medication that has been shown to be effective in preventing migraines. Beatriz had done a little research on her own and knew that there could be an increased risk for birth defects in women taking this medication while pregnant. She went on to explain that she had been planning to become pregnant, and was trying to do everything right, including reaching a healthy body weight, getting her flu shot a couple of months ago, and taking her daily vitamin with folic acid. But… as often happens, Beatriz got pregnant earlier than she had planned. Hence her panic and many questions!

Tip #1: Talk to Your Healthcare Provider

I explained to Beatriz that I often talk with women in these types of situations. So I started by reminding Beatriz that with every pregnancy there is a small 3-5% background chance for having a baby with a birth defect. As Beatriz had learned from her own research, taking Valproic Acid in the first part of a pregnancy increases the risk for spina bifida by 1-2%. Spina bifida is a birth defect that occurs when a baby's spine and spinal cord don't form properly. Upon hearing this confirming information, Beatriz immediately stated that she would stop taking her medication to take away this possible increased risk. I responded that it is always best to talk with your healthcare provider before stopping or starting any medications during pregnancy. They know you and your pregnancy best, and can give you

personalized advice, not just general information. I told Beatriz that before making any changes to her medication, she really needs to discuss with her healthcare provider the benefits of taking the medication versus the risk to staying on the medication.

Tip #2: Folic Acid

Beatriz mentioned she has been taking a daily prenatal vitamin with folic acid as she knew that she was planning to get pregnant. Folic acid is the lab-made form of the vitamin folate (vitamin B9). Folate is necessary for making and maintaining healthy cells in your body. Taking recommended amounts of folic acid has been shown to reduce the percentage of babies born with birth defects, including spina bifida, a birth defect that occurs when a baby's spine and spinal cord don't form properly. Starting at least one month before pregnancy, the recommended daily amount of folic acid is 400 micrograms (mcg), or 0.4 milligrams (mg). During pregnancy, the recommended daily amount is 600-800 mcg. Many daily and prenatal vitamins already contain the required amount of folic acid. Beatriz checked the vitamin she had been taking and saw that it did contain 800 mcg of folic acid.

Tip #3: Healthy Weight

While planning to become pregnant, Beatriz has also mentioned that she been eating a better diet and had started an exercise program. She was happy to report to me that she has lost 25 pounds over the past six months and is now at a healthy body weight. Now that Beatriz knows she is pregnant, she can continue an exercise program that is appropriate for pregnancy. I told Beatriz she might want to chat with her healthcare provider and ask any questions she may have about appropriate exercise during pregnancy, such as walking and swimming.

Tip #4: Vaccines

I asked Beatriz about vaccinations, and she said she is up-to-date on all her vaccines, including having received her flu vaccine earlier this fall. It is recommended that women who are pregnant (whether in their first, second, or third trimester) or planning to become pregnant get the seasonal flu shot given by injection. The flu shot is a dead, inactive vaccine and there is not a known increased risk for birth defects or other pregnancy problems. Beatriz also mentioned that she plans to talk with her healthcare provider about getting the pertussis vaccine (known as TDaP), as this vaccine can help protect her baby from whooping cough, a potentially serious illness for babies.

Tip #5: Harmful Substances

Beatriz also reported to me that she had already stopped drinking alcohol as she knew there is not a known safe level of alcohol use when pregnant, and she also did not use any tobacco or other drugs. These are critical steps in preparing for a healthy pregnancy, as outlined in another one of our blogs.

After reviewing all of this information with Beatriz, she stated that she would call her healthcare provider in the morning to discuss whether she should stop taking Valporic Acid and determine if there any alternative treatments for her migraines that might be safer in pregnancy. Beatriz was happy to hear that she was well prepared for her

pregnancy, having already successfully completed 4 of the 5 recommended tips. Even though Beatriz became pregnant a few months earlier than she had wanted to, she was now excited and thrilled to be pregnant.

So what's the takeaway from Beatriz's story? There are things you can do to prepare yourself for a healthy pregnancy and to decrease the chance of having a baby with a birth defect. So if you are pregnant or planning to become pregnant, do yourself and your baby a favor and review the 5 tips. And as always, if you have any questions about an exposure during pregnancy – such as a medication, supplement, vaccine, or recreational substance – our MotherToBaby specialists are here to help!

Recommended Fact Sheets
Abatacept (Orencia®)
ACE Inhibitors
Acetaminophen (Paracetamol)

Related Blogs
Lorem Ipsum Dolor Sit Amet
Consectetur Adipiscing Elit
Ulum Psuere Lorem Ipsum Dolor

Featured Podcasts
Lorem Ipsum Dolor Sit Amet
Consectetur Adipiscing Elit
Ulum Psuere Lorem Ipsum Dolor

Disclaimer: MotherToBaby Fact Sheets are meant for general information purposes and should not replace the advice of your health care provider. MotherToBaby is a service of the non-profit Organization of Teratology Information Specialists (OTIS). Copyright by OTIS, March 17, 2020.

The A.B.C.’s of Prenatal Vitamins

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!

Disclaimer: MotherToBaby Fact Sheets are meant for general information purposes and should not replace the advice of your health care provider. MotherToBaby is a service of the non-profit Organization of Teratology Information Specialists (OTIS). Copyright by OTIS, March 17, 2020.

The A.B.C.'s of Prenatal Vitamins

A couple of weeks ago, a friend of mine who is in her second trimester of pregnancy, called me in a panic. Due to her recent medical history, it was recommended that she get an MRI in addition to her yearly mammogram as a way to screen for breast cancer. She, like many women who have the same question, was relieved and grateful to get this information. She then asked, "do women get diagnosed with cancer in pregnancy? Can they be treated?"

What We Know about Cancer in Pregnancy

Yes, cancer occurs in about one in a thousand pregnancies every year. The most commonly diagnosed cancers in pregnancy are breast, cervical, Hodgkin's disease, malignant melanoma, and leukemias. It can be tricky to diagnose cancer during pregnancy because common cancer symptoms such as fatigue, changes in the breasts, bloating, headaches, rectal bleeding, blotchy skin, and achy joints can also be symptoms of pregnancy.

Diagnosis

Cancer can be diagnosed in different ways, including physical exams, biopsies, blood tests, ultrasounds and pap smears – all of which are used in pregnancy. But what about other tests?

- X-rays can be used to diagnose cancer during pregnancy. The level of radiation used during an x-ray is too low to cause any known harm to the developing baby. When possible, women can use a lead shield that covers the abdomen during x-rays.
- Computed tomography (CT or CAT) scans of the head or chest do not directly expose the developing baby to radiation. CT scans of the abdomen or pelvis can be done in pregnancy if absolutely necessary.
- Magnetic resonance imaging (MRI) does not use radiation and can be used in pregnancy.

Once diagnosed, the next thing to consider are various treatment options. Cancer can be successfully treated during pregnancy, but there are some important things to think about such as the size and location of the tumor, if the cancer has spread to other body parts, how far along you are in the pregnancy, and any other health conditions you may have.

- Many medications used for cancer treatment (chemotherapeutic agents) are usually not given in the first trimester of pregnancy, because that's when a lot of the baby's development is happening. However, it's possible to use them in the second or third trimesters. This can vary based on many factors, including the medication itself.
- Surgical procedures (including using anesthesia) can usually be done during pregnancy.
- For treatments such as radiation, hormone therapy, and targeted therapies, it's often suggested to wait until after the baby is born.
- Depending on the exact treatments and medications, breastfeeding may or may not be recommended.

Thankfully, my friend's MRI is normal at this time. She was reminded to watch for any changes in her breasts and keeping an eye on any symptoms. Remember, whether you are pregnant or not, it's always best to report any concerns to your healthcare provider as soon as possible. This way you can be properly evaluated, and treated if necessary, because most of the time a healthier mom leads to a healthier baby.

Disclaimer: MotherToBaby Fact Sheets are meant for general information purposes and should not replace the advice of your health care provider. MotherToBaby is a service of the non-profit Organization of Teratology Information Specialists (OTIS). Copyright by OTIS, March 17, 2020.