Forging Ahead With Facts As Her Fuel

By Jennifer Lemons, MS, CGC, MotherToBaby Texas TIPS

It was the longest 3 minutes of her life. As she opened her eyes to glance at the test, her heart stopped. She couldn't breathe. Frantically, she tore open the instructions that came with the test to confirm what she already knew. She was pregnant. She laid her head on the bathroom stall, tears threatening to fall. It was then that the bell rang, signaling the end of lunch. It was time to go to class. But all she could think was, "I'm only 16…"

May is National Teen Pregnancy Prevention Month, a good time to focus on the specific challenges a young, pregnant mother may face. Teen pregnancy raises a myriad of emotions and thoughts from the most practical of, "How am I going to finish school?" or "What will my parents think?" to the more profound, "Should I even keep it?" or "Could I have harmed the baby somehow?"

When trying to answer these questions, it should come as no surprise that teens are at a high risk for receiving misinformation from many sources, i.e. the internet, friends and media. As a certified genetic counselor at MotherToBaby, this concerns me greatly – for mom's sake, as well as baby's. When somehow that mom-to-be lands on the other end of my phone line, in my office or on the other end of an email, I am relieved. She's found a trustworthy resource available for pregnant teens to help them answer these important, and potentially life-changing, questions.

MotherToBaby, a service of the nonprofit Organization of Teratology Information Specialists (OTIS), provides the most up-to-date, evidence-based information to mothers, healthcare professionals, and the general public about potentially harmful exposures, like alcohol, drugs and medications, during pregnancy and while breastfeeding. Each question that MotherToBaby receives is researched by a professional like me. From questions about bug repellant to illegal drug use, MotherToBaby has seen it all! So, what are some of the most common questions I get from young moms?

ALCOHOL. "Can I drink any alcohol at all during my pregnancy?" No amount of alcohol is safe during pregnancy. However, babies exposed to large amounts of alcohol at one time (i.e. binge drinking) and/or frequently throughout a pregnancy may be at risk for Fetal Alcohol Spectrum Disorder (FASD). Babies with FASD may have one or more of the following: birth defects, intellectual disabilities, learning disorders and/or behavioral problems.

CIGARETTES. "Why can't I smoke cigarettes while I am pregnant?" There are over 4,000 chemicals and toxins in cigarette smoke. Several of these can cross the placenta and decrease the amount of oxygen and nutrients available to baby. Studies on heavy smoking (smoking 15 or more cigarettes per day) during pregnancy have shown an increased risk of oral clefts in newborns, as well as a higher chance for preterm delivery, low-birth weight or miscarriage. Long-term effects have included a higher risk for childhood asthma, bronchitis, and respiratory infections, as well as ADHD. It's never too late to quit smoking – even reducing the number of cigarettes smoked per day will help!

MARIJUANA. "I've heard it is OK to smoke marijuana during pregnancy. Is this true?" There is conflicting information available about the effects of marijuana on a pregnancy. While some recent studies have shown that it has not been associated with an increased risk for birth defects or complications, there is not enough data available to say this with 100% confidence. Additionally, cognitive and behavioral problems have been seen more often in children whose mothers were "heavy" marijuana users (used marijuana one or more times per day). Again, the evidence is not conclusive and some studies report conflicting results. Plus, smoking is smoking, so heavy marijuana use during pregnancy can be associated with many of the same problems as heavy cigarette use.

METHAMPHETAMINES. "I've used methamphetamines in the past. Is this OK to use now and then while I am pregnant?" Methamphetamines (meth) should not be used at any point during pregnancy. Meth use has been associated with an increased risk of miscarriage or preterm delivery. Meth use later in pregnancy has also been associated with babies experiencing withdrawal symptoms after being born. Currently, there is not enough data to know whether meth use during pregnancy increases the risk of birth defects, although heavy use of meth during pregnancy may increase the risk for learning problems.

There's no doubt the road ahead will be filled with many more questions for a young parent, but I'd like to think receiving a reliable personalized risk assessment about exposures during pregnancy and breastfeeding will be the start of an important support system she builds for herself.



Jennifer Lemons, MS, is a certified genetic counselor and clinical instructor in the Department of Pediatrics, Division of Genetics at the University of Texas Medical School. In addition to providing teratogen counseling for MotherToBaby TexasTIPS, she provides genetic counseling services at the Gulf States Hemophilia and Thrombophilia Center in Houston. Special thanks to Meagan Giles, a 2nd year genetic counseling student with the University of Texas Genetic Counseling Program, who also contributed information to this blog.

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

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Forging Ahead With Facts As Her Fuel

By Lori Wolfe, Certified Genetic Counselor and Teratogen Information Specialist, MotherToBaby North Texas

It's pretty much a fact – ALL pregnant women worry…about what they eat, what they do, what they breathe. Basically, they worry about everything. That's simply because every expectant mother wants to do the very best she can for her developing baby. As a genetic counselor who runs the North Texas affiliate of MotherToBaby, I get calls every day from pregnant woman who want to know what to do and what not to do in order to have the best chance of having a heathy baby without birth defects.

Recently I was having lunch with my friend, Amber, who is expecting her first babies…Yes… plural! In seven short months, she'll become the mother of twins! As a first time mom-to-be, Amber is always full of questions when we get together. Nothing like having a friend who is an expert in the pregnancy exposure field, right?! "Lori, is it true that since I eat lots of dark green veggies, and breads and cereals, that my babies will not have spina bifida? I remember hearing something about how good folic acid is for developing babies. Is that true?" asked Amber. "Yes!" I enthusiastically replied. "Having enough folic acid in the first two months of your pregnancy is very important to help prevent birth defects in your developing babies. In fact, studies have shown that if you are getting at least 400 mcg of folic acid during your early pregnancy through the foods you eat, as well as your prenatal vitamin, then your babies have up to a 70% less chance of having a spinal cord defect such as spina bifida." The look on her face was priceless…pure shock! "70%? Really?! Wow, I had no idea it could be so effective," Amber answered. "Yes, I have been taking a daily prenatal vitamin since before I became pregnant. I am always careful to take one every day. So what else can I do to help my babies be born without birth defects?"

Let me break it down for all of the "Ambers" out there. What's thought to be the most common preventable cause of mental retardation in a baby? The answer – drinking alcohol during pregnancy. "And what is so crazy is that women do not need to drink alcohol when they are trying to become pregnant, and definitely not once they have a confirmed pregnancy," I explained. About one in every 100 babies born in America is affected by prenatal alcohol exposure and it is totally preventable by simply avoiding alcohol during pregnancy. "Amazing!" replied Amber. "I never realized so many kids were affected by their moms' drinking alcohol during pregnancy. That is sad. But I am good on this count as I have not had any alcohol at all during the last few months," Amber said.

"So is there anything else I can or can't eat or drink, or something else I can avoid that could make a difference in my babies not having birth defects?" she went on to say. "You are about eight weeks pregnant now, right Amber?" I asked her. "Yes. I am now about eight and one half weeks. Why?" she asked. "Well, another thing we worry about is hyperthermia," I told her. "Hyperthermia means increasing your internal or core body temperature up to 102 degrees Fahrenheit or more. When you become that hot, the baby inside of you becomes hot too. When the baby's temperature becomes too hot, especially in weeks five and six of a pregnancy, there is an increased chance that the spinal cord will not close, and your baby can be born with an open spinal cord defect like spina bifida. So we always caution pregnant women not to sit in hot tubs that are heated over 100 degrees, or to be careful to watch their temperature if they become ill with a fever during early pregnancy," I said.
"All of this is really good to know," Amber answered, as we wrapped up lunch. "I'm lucky I have you as a friend!"

I love making sure women have someone to turn to for answers when they have questions about exposures while pregnant or breastfeeding. In fact, during March when the world will commemorate the first-ever World Birth Defects Awareness Day, my lunch with Amber serves as a great reminder that my colleagues and I are there for all pregnant and breastfeeding women across North America.
If you have a question during pregnancy and breastfeeding about something you ate, drank or medication you took, call MotherToBaby at 866-626-6847. I may not be able to meet you for lunch, but a main course of free expertise over the phone, followed by a huge helping of cutting edge research to support that expertise, will certainly be exactly what you ordered in your search for answers. And who knows? Your kids might even thank you for having such an appetite for knowledge one day!

Lori Wolfe is a board certified Genetic Counselor and the Director of MotherToBaby's North Texas affiliate.

MotherToBaby aims to educate women about medications and more during pregnancy and breastfeeding. Along with answering women's and health professionals' questions regarding exposures during pregnancy/breastfeeding via MotherToBaby's toll-free number and by email, Wolfe also teaches at the University of North Texas, provides educational talks regarding pregnancy health in community clinics and high schools, and counsels adoptive parents. MotherToBaby is a service of the international non-profit Organization of Teratology Information Specialists (OTIS), a suggested resource by many agencies includingthe Centers for Disease Control and Prevention (CDC). If you have questions about vaccines, medications or other exposures, call MotherToBaby toll-FREE at 866-626-6847 or visit **MotherToBaby.org** to browse a library of fact sheets and find your nearest affiliate

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Forging Ahead With Facts As Her Fuel

By Sharon Voyer Lavigne, MS, MotherToBaby CT Teratogen Information Specialist

"I know I should quit, but it's hard…I've cut down, though! I know it's bad for me, but is it really that bad for my baby anyway?" I had heard these words time and time again as a teratogen information specialist and genetic counselor at MotherToBaby. Let's call this particular caller "Jenny." Well, whether Jenny had volunteered this information about her addiction to cigarette smoking or not, I would have asked her anyway. At MotherToBaby Connecticut, we ask all our callers about cigarettes as well as alcohol exposure even if it isn't the reason they placed the call in the first place. Why? Because most need help quitting without judgment and with the facts about smoking during pregnancy guiding their way to leading a tobacco-free lifestyle. We find that many, if not all, smokers tell us that they have cut down on their use or recently quit once they learned that they were pregnant.

Like Jenny, the general public is well aware that cigarette smoking causes cancer, heart disease as well as other medical conditions. Most have also learned that smoking while pregnant can be dangerous to the baby. However, most women know at least one person, maybe even their own mother, who smoked during pregnancy without any apparent adverse pregnancy outcome. So why should we be concerned? There is much more to this story and with each chapter, I was hoping to let Jenny in on why quitting could change the outcome for her baby…

Chapter 1. Smoking and Fertility

Cigarette smoke contains more than 4,000 toxic chemicals and cancer causing agents, including nicotine, tar, arsenic, lead, carbon monoxide. It is hard to imagine intentionally putting those things into your own body, but imagine the

problems they may cause if a developing baby is exposed? These agents can cross the placenta and cause a decrease in the amounts of oxygen and nutrients that reach the baby. There have been reports that suggest smoking prior to pregnancy may make it more difficult to conceive. Discontinuing smoking can reverse this potential fertility road block. Even when men smoke, smoking can adversely affect their chances of getting their partners pregnant.

Chapter 2. Loss of Pregnancy Risk
In the early stages of pregnancy, i.e., the first trimester, smoking cigarettes can increase your chances for an ectopic pregnancy. This condition is when the embryo implants into a fallopian tube and not into the uterus. This is a very serious complication of pregnancy that may require surgery or special medications to stop the growth of the embryo. Another early pregnancy complication related to cigarette smoking in pregnancy is loss or miscarriage. Smoking changes how the blood flows thru the placenta and this change may lead to a loss.

Chapter 3. Potential for Birth Defects
Smoking in pregnancy has been well studied for many decades and there have been reports suggesting an increased risk for birth defects. Oral clefts (cleft lip and or cleft palate) occur when the lip or palate (roof of the mouth) do not fully close during early fetal development. These birth defects of the face are typically surgically corrected here in the United States, but more than one surgery could be necessary and lasting effects may still be visible on the face and in speech development. There have been other reports of other birth defects being more common in moms who smoked in pregnancy, but the level of risk appears small and more information on these is needed to make better risk assessments.

Chapter 4. Pregnancy Complications
Not done yet. Many women are aware of the risks for pregnancy complications with smoking later in pregnancy. Prematurity (born before 37 weeks gestation) and low birth weight are well established risks. Each of these may pose their own secondary risks with complications for the newborn born too small or too soon or both. Placental problems are of concern, including placenta previa (a condition where the placenta covers the cervix and blocks the birth canal) or placental abruption (potentially deadly for mom and baby- this is when the placenta breaks away from the uterine wall causing extensive bleeding). Bleeding alone and stillbirth are pregnancy complications also related to smoking in pregnancy.

Chapter 5. Other Potential Long-Term Effects on Baby
Other complications related to smoking in pregnancy that have been studied are childhood asthma, bronchitis and respiratory infections as well as Sudden Infant Death Syndrome (SIDS). SIDS is difficult to impossible to predict and prevent. Withdrawal symptoms in the newborn such as irritability, increased muscle tone and tremors can be seen in those exposed to smoking late in pregnancy. Usually these symptoms resolve on their own quickly. Behavior problems have also been looked at in children whose mom's smoked in pregnancy. A higher risk of Attention Deficit Hyperactivity Disorder (ADHD) is currently being studied more carefully.

Chapter 6. Smoking and Breastfeeding
Nicotine can be found in the breast milk, along with many of the other unhealthy chemicals in cigarettes. It is best to avoid smoking if you are nursing your baby. If you cannot stop completely, the benefits to the baby from breastfeeding still outweigh the risks from smoking while nursing. You should not smoke around the baby or let others do this either.

Final Chapter: How Quitting Can Help You Re-Write This Chapter For Baby
Finally, some good news for Jenny and all of those struggling with this crippling addiction… If a woman can stop smoking early in pregnancy, she can reduce the risk for many of the mentioned complications. If quitting isn't possible than a reduction in the number of cigarettes smoked per day can also make matters better. The less you smoke the lower the chances that you and or your baby will suffer lasting effects in pregnancy. Quitting is best, and it is NEVER TOO LATE to have a positive effect on your baby.

There are many supports for quitting smoking in your community. For advice you can talk to your health care provider, before or during pregnancy. There are medical treatments that can be safe in pregnancy and many quit programs available. Smokers Quit Line at 1-800-784-8699 or online at **www.tobacco-cessation.org/PDFs/?NeedHelpBookelt.pdf**. Partner and family support is also key, so share your goals with them.



Sharon Voyer Lavigne is a teratogen information specialist, genetic counselor and coordinator of MotherToBaby CT, a non-profit affiliate of the international Organization of Teratology Information Specialists (OTIS). She is based at the University of Connecticut Health Center and is a proud mother of three.

MotherToBaby and OTIS are suggested resources by many agencies including the Centers for Disease Control and Prevention (CDC). If you have questions about medications, vaccines, diseases, alcohol, smoking or other exposures, call MotherToBaby toll-FREE at 866-626-6847. You can also visit MotherToBaby.org to browse a library of fact sheets, including one on Cigarette Smoking in Pregnancy/Breastfeeding, and find your nearest affiliate.

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