A Not-So-Silent Night: Restless Legs Syndrome and Pregnancy

By Patricia Markland Cole, MPH, MotherToBaby Massachusetts

I heard the pregnant mom on the phone say, "I get this miserable feeling at night with my legs. I feel this constant urge to move my legs and it feels like ants crawling all over. It only happens at night and I just cannot rest like I want to. What can I do?"

Although I haven't had many calls like this in my years with MotherToBaby, every now and then I get a call with a mom describing this condition with her legs and how miserable it makes her. She's trying to get a good night's sleep for the sake of her baby but this condition makes that impossible. Totally frustrating!

The condition she's describing is called Restless Leg Syndrome, or RLS.

RLS, also known as Willis-Ekbom Disease (WED), is a common sleep disorder that affects 5-15% of the US population with women being affected twice as often as men. Although not limited to pregnancy, RLS is commonly associated with pregnancy with approximately 10-34% of pregnant women experiencing RLS.

RLS is associated with an unpleasant feeling in the legs that tends to get worse in the evening (especially at bedtime) and produces an overwhelming desire to move your legs. The movement of your legs or massaging them relieves the sensation to move. As you can imagine, this is quite disruptive when you are trying to get a good night's rest, which is so important during pregnancy. Pregnancy is considered to pose an increased chance for developing RLS, and the symptoms appear to be the most intense during the last three months of pregnancy. When RLS occurs for the first time during pregnancy it is considered secondary RLS, compared to idiopathic RLS (a condition with an unknown cause). Fortunately for most women who experience RLS in pregnancy, the symptoms disappear soon after birth. Yet for some women the symptoms can last for weeks after childbirth. And depending on when the symptoms start, it can be a long time for a woman to experience many restless nights before any relief is seen.

I would just like to say to any woman who has experienced this during pregnancy, you have my deepest sympathies because this sounds very unpleasant.

So what is a pregnant woman to do?
The first thing to do is to have a conversation with your doctor or nurse. These are the four criteria that need to be met for a diagnosis with RLS:

- Urgent desire to move your legs, along with discomfort such as pain, restlessness, tingling, burning, aching, or a creeping feeling.
- The strong urge to move your legs and the unpleasant feelings in the legs occur just before a person is ready to fall asleep or has not been active for a while. At times the longer the person has been inactive, the worse the symptoms get.
- Moving or massaging your legs relieves the discomfort or greatly reduces it.
- The symptoms show a pattern of only getting worse in the evening or at night.

RLS needs to be properly diagnosed because other conditions that can mimic it must be ruled out. For example, nocturnal leg cramps (i.e., occurring at night) are painful but unlike RLS, moving the legs will not relieve or improve symptoms. Similarly, hypnic jerks are uncontrolled twitches that occur just when a person is falling asleep, but unlike RLS, they are not linked with a desire to move the legs and movement does not improve the symptoms.

What is the cause of RLS in pregnancy?

The answer to this remains unclear. Many hypotheses have been generated and not one agent appears to be solely responsible for RLS during pregnancy.

The most common suspected causes have been associated with folate, iron, and ferritin levels. There is data suggesting that pregnant women suffering from RLS have lower folate levels than women who do not have RLS, but the results have not been consistent. The same is true regarding iron deficiency and low ferritin levels. There have been some results that showed improvement with iron supplements, but there have also been cases where taking these supplements made little improvement. Also, improvement of symptoms after childbirth have not been linked to iron or folate levels. (Note: Glossary for underlined words are at the end of blog)

Another suspect has been Vitamin D. Low levels of Vitamin D are not uncommon in pregnancy and this can affect dopamine activity. Dopamine is a neurotransmitter (a chemical in the brain) in the brain that helps regulate movement (among other things). Since we are dealing with pregnancy (a time when a woman experiences hormonal changes), hormones have also been considered as a cause, especially because the symptoms of RLS disappear for the majority of women after childbirth when hormone levels return to normal.

Other factors that can increase the chance of RLS are a family history of this disorder, having RLS in a previous pregnancy, smoking and caffeine exposure, and inadequate blood flow through veins of the body.

What can be done to manage symptoms?
Helping pregnant women to manage their symptoms is important because the lack of sleep, fatigue and sleepiness in the daytime can impact mood and your general sense of well-being. In addition, there are concerns that dealing with RLS can increase pregnancy complications including prolonged labor, preeclampsia, and a difficult delivery. The data is not strong in these areas and further research is needed.

Treating RLS can reduce the level of stress for the pregnant woman. Avoiding RLS triggers may help; this includes smoking (which in general is not recommended for a healthy pregnancy), caffeine, and medications that lower dopamine action in the body (like older antihistamines). Conservative treatments include massage and stretching the legs, wearing elastic compression stockings, taking warm baths and moderate exercise on a regular basis. If there is an iron and folate deficiency, supplements can be taken to increase levels, or in extreme cases supplementation by IV for increased iron levels. If these conservative measures have failed, then treatment with medications can be considered.

There are various medications for consideration like certain antiepileptics, benzodiazepine, dopaminergic (certain medications used in the treatment of Parkinson's disease) , opioids (for the most severe cases) and blood pressure medications; each has its positives and negatives. It appears that clonazepam (a benzodiazepine) and clonidine (a blood pressure medication) are the most favorable but neither one is risk-free. If medication is needed, the goal is to use the lowest dose for the shortest amount of time possible. Talk with your health provider about medication options for RLS, and feel free to contact a MotherToBaby specialist for a summary of what is known about these medications when used in pregnancy.

Overall, it is not uncommon for pregnant women to experience sleep disorders during pregnancy and RLS is one of them. It can occur for the first time during pregnancy and symptoms can increase with each stage of pregnancy. Women who have had a family history, had multiple pregnancies, a previous pregnancy with RLS and low levels of some key vitamins and nutrients have a higher chance of experiencing RLS during pregnancy. For the majority of women the symptoms disappear after childbirth, but depending on the severity of symptoms and stage of pregnancy, waiting for childbirth may be unbearable. Fortunately, there are some conservative measures that have helped and, when all else has failed, there are medications as options for treatment. It is important to get a good night's rest, so pregnant women should discuss the matter with their doctors for proper diagnosis and appropriate treatment; and then who knows, maybe you can just "sleep in heavenly peace".

Wishing you a healthy holiday season and a very "silent night."

Patricia Markland Cole, MPH, is the Program Coordinator for MotherToBaby Massachusetts. She obtained her Bachelor's degree in Biology from Simmons College in Boston and her MPH in Maternal and Child Health from Boston University School of Public Health. She has been the serving the families of New England as a teratogen counselor since 2001 and provides oversight for the day-to-day functions and outreach of the program. She has also provides education to graduate students and other professionals.

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Glossary:

Folate is water-soluble (can dissolve in water) and must be taken in every day. Not enough folate can cause anemia (a condition in which the number of red blood cells is below normal), diseases of the heart and blood vessels, and defects in the brain and spinal cord in a fetus.

Ferritin is a protein in the body, especially found in the bone marrow, spleen, skeletal muscles and liver. It is responsible for storing iron in the cells. By binding with iron, ferritin is decreasing the toxicity of iron and enables its transport.

Dopamine is one of the brain's neurotransmitters—a chemical that ferries information between neurons. Dopamine helps regulate movement, attention, learning, and emotional responses.

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A Not-So-Silent Night: Restless Legs Syndrome and Pregnancy

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

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

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

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

- **Bring Your Medications…And Use Them**
  Do you need medications that you can only get in the U.S.? Certain life-saving medications cannot be obtained in other parts of the world. Or maybe you are supposed to be checking your blood sugars if you are pregnant and have diabetes? Just because you are on holiday, doesn't mean you can let yourself go! Stick to your carb-controlled diet and your insulin, so that you don't end up in a hospital where there is not a medical intensive care unit.
- **Is Your Pregnancy "High Risk"?**
  Are you pregnant with twins or triplets? Did you deliver any of your older children earlier than 37 weeks? If so, you are at increased risk of preterm birth. Be aware that if you go into preterm labor on the beaches of Hawaii, you might get stranded and hospitalized in paradise until the babies are born! And if they are born "premie" or prior to 36 weeks, you might need to book a hotel to stay there until the babies are big enough to fly home.
- **Don't Fly After 36 weeks…and for Some women, Don't Fly at All**
  Are you at the end of your pregnancy? Experts recommend that most pregnant women stop flying once they've reached 36 weeks gestation. Air travel is not recommended at any time during pregnancy for women who have medical or obstetric conditions that may be exacerbated by a flight or that could require emergency care (e.g. a history of DVT [blood clot in a vein] or a pulmonary embolus [blood clot in the lung], stroke, heart attack, uterine cramping, leakage of fluid from the vagina, shortened cervix, or vaginal bleeding). If you have one of these conditions or if your doctor told you it's not safe, stay close to your OB care provider and the hospital where you plan to deliver.

- **Be Mindful of Zika "Hot Spots"**
  The Zika virus poses serious threats to your developing baby (for more info, see MotherToBaby's Zika Virus Fact Sheet). If your idea of the perfect babymoon is a tropical getaway, check to see if your destination has Zika-bearing mosquitoes. Parts of Mexico, South America, and most Caribbean islands are still on the Zika watch list. Unless you and your partner are committed to trading in your sunscreen for insect repellant or staying indoors with the windows closed, you might want to book a trip to picturesque Prince Edward Island!
- **Skip the Glass of Wine**
  While in vacation mode, you may be tempted to indulge in a glass of wine, a beer, or a margarita, but don't do it. There is no known safe level of alcohol consumption during pregnancy. Prenatal exposure to alcohol is the leading preventable cause of birth defects and developmental disabilities. Check out MotherToBaby's Alcohol Fact Sheet for more info.

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

Society for Maternal•Fetal Medicine
High-risk pregnancy experts

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A Not-So-Silent Night: Restless Legs Syndrome and Pregnancy

By Rogelio Perez D'Gregorio, MD, MS, MotherToBaby UR Medicine

Not many people know this, New York is the only state that requires that every pregnant woman have her risk of lead exposure assessed at the first prenatal visit. As a doctor seeing pregnant patients regularly, this is unbelievable to me! Highlighting this topic is particularly appropriate during October as this month we'll celebrate National Lead Poisoning Prevention Week. This awareness week was created because lead exposure can have such serious consequences, for pregnant women and particularly for developing children.

What is lead?
Lead is a heavy metal found in many different places, like dust, air, soil, water, food and inside our homes. For generations, lead has been used in many products, like paint. People didn't even realize it was there and that is could be harmful. It was also used in gasoline, and continue to be used in batteries, electronics, pipes, solder, ceramics, glass, toys and jewelry among many other things. In 1978, lead was removed from the manufacture of household paints. But even today the remodeling of homes with old lead paint that had been applied years before continues to be a common source of lead exposure, especially when the paint is peeling or chipping off of the walls.

What is lead poisoning?
Lead poisoning may result in one symptom or many vague symptoms that sometimes are overlooked by health care providers. They can sneak up on an exposed person and he/she may not even realize he/she's sick. Symptoms of lead poisoning can include abdominal pain, constipation, diarrhea, aggressiveness, anxiousness, hyperactivity, shortened attention span, muscle pain, weakness, weight loss, learning disabilities, convulsions, and (with significant lead exposure) even death. Someone with lead poisoning might also develop anemia (low blood iron).

It can be devastating for developing babies and kids.
In pregnancy, lead can cross the placenta and reach the baby; so if a pregnant woman is lead-exposed, so is her baby. In addition, young children tend to put everything in their mouths, so their risk for possible exposure is high. Low doses of lead can do lasting damage to infants and young children, as well as babies developing in mom's womb. Potential effects include:

- Lower IQ
- Distractibility and hyperactivity
- Hearing loss
- Anemia
- Growth and behavioral problems
- Kidney and brain damage
- Bone weakness/osteoporosis

So what can you do to reduce your and your child's exposure to lead?

- All pregnant women should consider being tested for lead exposure. It is a simple and inexpensive test that can be included with the blood tests being done at your first prenatal visit. If your obstetric health-care provider does not suggest testing, ask your provider to order a blood lead test.
- Have your child tested for lead starting before age 1, with regular testing occurring until age 6. Children under 6 are especially at risk, and the long-term effects of lead in a child can be severe!

- Keep your house clean. Dust contaminated with lead that is accessible to young children can cause an increased blood lead level. Help young children wash their hands with soap and water frequently and discourage them from putting their fingers in their mouths. Use a wet mop to dust, clean windowsills regularly and wash toys frequently.
- Lead in soil does not break down with time; it remains there forever. Don't allow children to play in areas of bare soil.
- Don't burn painted wood, as it may contain lead.
- If you work with lead, shower and change your clothes before going home.
- Don't remove lead paint yourself; it's a job best left to the professionals.
- Run the cold water in your kitchen faucet at a high rate for at least 30 seconds before drinking it, using it for mixing infant formula or for cooking, especially if it hasn't been used in several hours.
- Don't store food or drink in lead crystal glassware or old pottery.
- Beware of herbal products that are not certified because a range of heavy metals have been found in uncertified herbal products.
- Make sure children have adequate amounts of calcium, iron and Vitamin C in their diets. If their diets are low in these minerals or vitamins, they can potentially absorb more lead if they ingest it.

As much as I am discouraged to see the lack of testing required nationwide for lead exposure, I am still filled with hope. My hope is that awareness, like this blog, will prevent one more child from being exposed to lead. Spread the word, share this info and remember, lead poisoning is entirely preventable! #kNOwLEAD this month and every month!

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- For additional Information – MotherToBaby@urmc.rochester.edu

A Not-So-Silent Night: Restless Legs Syndrome and Pregnancy

By Dr. Sarah Običan, OBGYN, MotherToBaby Florida

I feel really lucky. I have had the pleasure and privilege to live and work in some great cities and universities as an OBGYN. I spent my formidable residency years in Washington, DC and loved the diversity of my patients. Being that I was located in the heart of our nation's capital, in one room I would deliver a princess of some far off nation, in the

next, it'd be a dignitary from "the Hill." But it wasn't always rosy. Working in such a busy labor and delivery unit meant I would also take care of a 36-week pregnant mother who almost overdosed on cocaine and heroin. The experience was humbling and arguably taught me more about medicine and life than any other. My fellowship years at Columbia University I spent living in Harlem. I brought into the world my first son and delivered him into that beautiful and diverse community. It is a community that's strong and steeped in history where every stroll on the city sidewalk is a moment from a great photo essay. It is also a community of struggles, hard lives, and injustice. It's unfortunately a "perfect" setting for the drug market to make its mark.

Still nothing could have prepared me for my first job out of fellowship. I relocated to a great university center in Florida. With my training behind me, I was ready to tackle the hardest maternal and fetal diseases. If I'm being honest, though, my first week on the job was an eye-opener. Even with all my training, I was not ready for the sheer volume of patients suffering from opioid use and addiction.

I was seeing pregnant women with chronic opioid use almost every day. To say I was disheartened and scared for my patients would not give the feelings justice. I realized I needed to learn more. I studied the opioid crisis, read more on the subject than ever before, found physicians who were willing to treat pregnant women with opioid addiction and put them on my speed dial. I connected with a local treatment center and found the scarce resources in my new community. My new job was challenging but I wanted to somehow help the new community I serve and love.

So why should you care about all this?
Just like in the general population, ***opioid use during pregnancy is on a steep rise***. Alarmingly, death rates from overdoses are up too. Babies are also suffering; neonatal abstinence syndrome (NAS – drug withdrawal in the baby after birth) happens in more than a third of the newborns born to mothers with chronic opioid use. These babies can experience poor feeding, sleeping, and irritability. Drug abuse during pregnancy also increases the risk of preterm birth (early delivery), decreased fetal growth, and fetal death. In just under 15 years, the rate of NAS-affected live births quadrupled, significantly increasing the emotional, medical and economic burden on society.

Moms with opioid addiction need our help.
Opioid abuse is lonely. Sooner or later, many of my patients feel isolated. They are scared and feel shunned from their community. They can be addicted with very little resources extended to them for their care. You don't need to be a doctor to know that good prenatal care leads to healthier pregnancies. However, women who abuse opioids are much less likely to get appropriate prenatal care. These moms often suffer from anxiety and depression and may use substances along with opioids that have an impact on their pregnancy, such as alcohol and tobacco.

Hope.
For sure we are in an epidemic. We have heart wrenching clinical scenarios of mothers and their children, but we have some great stories too. Mothers who receive the support they need, babies born to healthier moms now capable to take care of their children. We have to fight for more resources in each of our communities, locally and nationally. It's not enough to show burden of disease, but more important to enrich our communities with possibilities. That is all of our jobs, no matter if you are a doctor, mother or neighbor.

> ***Dear Moms Struggling with Opioid Addiction,***
> ***Please know that I see you and I want to help.***
>
> ***Dear Healthcare Professional,***
> ***You may feel lonely, too, scared that you don't know enough or that you don't have the resources to find answers to appropriately help the patients you love. I've been there and I want to help.***

It begins and ends with all of us.

Resources for Moms and Health Care Providers:

- MotherToBaby's opioid-specific Fact Sheets and free information over its confidential helpline (866) 626-6847, text service (855) 999-3525 and live chat/email on https://mothertobaby.org/opioids/
- Substance Abuse Treatment Services Facility Locator, (800) 662-4357, https://findtreatment.samhsa.gov/
- National Council on Alcoholism and Drug Dependence, (800) 622-2255, https://ncadd.org/
- American College of Obstetricians and Gynecologists, www.acog.org/More-info/OpioidUseinPregnancy
- NCHS Data on Drug-poisoning Deaths, https://www.cdc.gov/nchs/data/factsheets/factsheet_drug_poisoning.htm

***Sarah G. Običan, MD**, is an OBGYN and Maternal Fetal Medicine specialist at the University of South Florida. She is the director of the new MotherToBaby Florida affiliate based in Tampa. She has particular research and clinical experience in teratology, fetal echocardiography and fetal therapy. She is the proud mom of two little boys.*

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A Not-So-Silent Night: Restless Legs Syndrome and Pregnancy

By Lindsey Morse, MS, CGC, MotherToBaby New York

It's officially summer! Time for pool parties, cook-outs, and beach-side picnics. Bring on the hamburgers and hotdogs, potato and pasta salads, fish fry, and barbecue chicken.

You may be wondering if it is safe to eat that food that has been sitting in the sun? Also, didn't I hear somewhere that pregnant women shouldn't eat fish or undercooked meat during pregnancy? Is it safe to swim in lake water or at the beach? How can I protect my baby during my pregnancy while still enjoying summertime fun and food with my family and friends?

Easy! There are just a few simple tips to keep in mind.

Tip 1 – Thoroughly cook all meat and seafood
Food safety is important whether you are pregnant or not. But some food-borne illnesses can be more of a concern if you are pregnant. Safe handling, preparation, and storage of foods reduces the chance that you could be exposed to little organisms that could make you feel bad in a big way.

One of the most common questions about food during pregnancy is about eating meat, especially deli sandwich meat, or undercooked meat (like that medium-rare steak). There are all these warnings about what to eat and what not to eat. So, how do you know what is a concern and what can you do about it?

Well, there are several microorganisms (bacteria and parasites) that can be found in meat before it's cooked, if it's only partially cooked, or if it has been cooked and then frozen or refrigerated to be eaten later. These include things like Escherichia coli (E. coli), Salmonella, Listeria, and Vibrio. (See MotherToBaby.org for more info in our fact sheets.) Some types, or strains, of these microorganisms are not harmful and are actually good for us, helping with digestion for example. But others can make you sick causing stomach cramps, diarrhea, vomiting, joint and muscle pain, and fever. Symptoms may last only a few hours with some infections or up to a week with others. In women who are pregnant, exposure to some microorganisms might make you sick, but are unlikely to directly affect the baby's development. Other microorganisms may increase the chance for miscarriage or other pregnancy complications, like early delivery.

You may have heard that women who are pregnant should not clean out their cat's litter box due to a risk of toxoplasmosis, but did you know that this same parasite, Toxoplasma gondii, is also found in undercooked meats?

When moms are infected during pregnancy, there is a chance for congenital toxoplasmosis in their babies. This can cause liver, spleen, heart, brain, and eye problems including blindness, deafness, seizures, and cognitive delays. This is usually only a risk with a new infection during pregnancy, not if you have had toxoplasmosis in the past.

Cooking meat and seafood until the center reaches a safe minimum temperature or reheating meat destroys the bacteria or parasite, thereby preventing illness. While great chefs will tell you all sorts of tips and tricks for determining how done your steak is, invest in a meat thermometer! They are easy to find in most grocery stores and really take the guess work out of not only your next backyard party but also your weeknight dinners. Below is a table with the recommended temperatures for different meats. You can find our fact sheet on meat and seafood at https://mothertobaby.org/fact-sheets/eating-raw-undercooked-or-cold-meats-and-seafood/.

Meat/Seafood	Safe Minimum Internal Temperature
Fish and Shellfish	145 °F (63°C)
Pork	145 °F (63°C)
Beef (steaks, chops, and roasts)	145 °F (63°C)
Beef and Pork (ground)	160 °F (71°C)
Wild game	165 °F (74°C)
Poultry	165 °F (74°C)
Cold lunchmeat and deli meat	Cook until steaming

Tip 2 – Safe food preparation and handling are also important
Some of the same bacteria and parasites can also be found on fruits and vegetables, or in unpasteurized dairy products like milk, cheese, and eggs. Washing your fruits and vegetables thoroughly and eating only pasteurized dairy products are the best ways to prevent exposure. And don't forget to wash your hands, cutting boards, and utensils thoroughly after handling uncooked meat, as well as unwashed fruits and veggies to avoid contaminating other foods.

Oh, and that grilled chicken that has been sitting in the sun for three hours – forget it! Once cooked, meat and seafood should be eaten right away. Leftovers of all types (including those pasta and potato salads, and anything with mayo or salad dressings) should be refrigerated at or below 40o F (4oC) as soon as possible and then meats thoroughly reheated before they are eaten.

Tip 3 – It is good to eat fish during pregnancy, but some are better than others
Another frequent question is about eating fish during pregnancy. Many fish contain a substance called methylmercury. Some fish have higher levels of this type of mercury than other types of fish – this usually depends upon the size of the fish, how long it lives, and where it lives prior to making it to your table.

But fish and seafood are actually a good source of protein and other vitamins that are good not only for adults but also for developing babies. The key is to eat the right types of fish and seafood in the right amounts. See our fact sheet

athttps://mothertobaby.org/fact-sheets/methylmercury-pregnancy/pdf/ for more information. The Food and Drug Administration (FDA) also has a quick guide which can be helpful to determine which are the best options for you: https://www.fda.gov/downloads/Food/ResourcesForYou/Consumers/UCM536321.pdf%20

Tip 4 – Do some research before going swimming
Some of the bacteria mentioned earlier in this blog can be found in water, like your local lake or warm coastal waters. In addition to bacteria, lakes and rivers can contain things like protozoa and worms which cause diarrhea, abdominal cramps, and fever. Besides eating contaminated food, these organisms can get into your body if you swim in infected water especially when you have an open wound, even a small scrape, if you swallow any water, or if water goes up your nose. Risks are often highest during and after a storm as this increases rain water runoff and pollution from the surrounding area.

There also can be certain types of algae in the water that may be harmful in high amounts. I recently received a call from a pregnant mom on vacation in Florida concerned about a red tide warning in her area. Red tides are caused by a high concentration of algae (an algal bloom) and happen mainly in Florida but can occur along the Gulf Coast or as far north as Delaware. Many algal blooms are not harmful, but others can cause low oxygen levels in the water harming marine animals and causing a build-up of toxins (called brevotoxins) in the water.

Pay attention to the warnings in your area because it is not a good idea to swim in areas where you know that there is an algal bloom or high bacteria counts, particularly if you have an open wound. Check out the Environmental Protection Agency's website https://www.epa.gov/beaches to find info about freshwater and saltwater beaches in your area. Also, look around the area that you plan to swim for obvious signs of pollution like a neighboring farm, trash in the water, or even dead fish floating in the water.

It is also important not to eat locally, recreationally caught shellfish during a red tide – shellfish in grocery stores and restaurants are regulated and are not caught during an algae bloom so they aren't contaminated but recreationally harvested shellfish could be. The brevetoxins which are found in red-tides are not destroyed by cooking.

Bottomline, planning is key! While often the risks associated with food-borne illnesses are bigger for you than for your baby, a few simple precautions can help you have a healthy pregnancy and still enjoy your favorite foods and summertime activities. Just remember to pick up a meat thermometer, give those veggies a good wash before you make that salad, avoid foods that have been sitting out in the sun, and know your lakes and beaches!

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About MotherToBaby
MotherToBaby is a service of the Organization of Teratology Information Specialists (OTIS), suggested resources by many agencies including the Centers for Disease Control and Prevention (CDC). If you have

questions about exposures during pregnancy and breastfeeding, please call MotherToBaby toll-FREE at 866-626-6847 or try out MotherToBaby's new text information service by texting questions to (855) 999-3525. You can also visit MotherToBaby.org to browse a library of fact sheets about dozens of viruses, medications, vaccines, alcohol, diseases, or other exposures during pregnancy and breastfeeding or connect with all of our resources by downloading the new MotherToBaby free app, available on Android and iOS markets.

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