Vaping during Pregnancy: Not Just a Bunch of Smoke

The use of vaping continues to increase, including women who are pregnant or planning a pregnancy. Here at MotherToBaby we review the newest studies and gather current information to answer the question, “What do we know about vaping and pregnancy?” For the purpose of this blog, I am going to focus on nicotine vaping.

What are ENDS (vapes)?

Electronic nicotine delivery systems (ENDS) describe a variety of products including:

- Vaporizers
- Vape pens
- Hookah pens
- Tank systems
- Mods
- Electronic cigarettes (e-cigarettes)

For ease, we will call them all vapes for the rest of the blog.

Vapes were originally developed as an alternative to cigarette smoking. Inside they include a battery, a heating device and liquid with many ingredients. These devices are also used to vape other substances, like cannabis. Vapes work by heating a liquid to create a mist (vapor) that a person inhales into their lungs.

The liquid can contain:

- Various flavors

- Nicotine
- Tetrahydrocannabinol (THC)
- Cannabidiol (CBD) oils
- Propylene glycol and glycerol
- Volatile organic compounds (VOCs)
- Contamination such as heavy metals

There is no standard liquid or heating process so knowing what is in the vape can be difficult.

Vapes can contain nicotine that is comparable to the amount in regular cigarettes. Nicotine crosses the placenta, enters the breastmilk, and reaches the developing baby. Some vape products that are marketed as free of nicotine are found to contain nicotine. While vape products may have less toxins than cigarettes, there is still exposure to nicotine and other toxic chemicals, which can increase the chances of pregnancy-related problems.

Studies have now shown that vaping can increase risks to pregnancy like cigarette smoking. This includes increased chances of:

- Miscarriage
- Preterm delivery (birth before week 37)
- Low birth weight (weighing less than 5 pounds, 8 ounces [2500 grams] at birth)
- Gestational hypertension (high blood pressure during pregnancy)

Compared to cigarette smoking, vaping did not show lower risks to a pregnancy and dual use showed the highest risks.

Is vaping a safer alternative than cigarette smoking in pregnancy?

Vape products came on the market in the U.S. in 2007, and their popularity grew quickly. One of the reasons they became so popular was the belief that they were a safer alternative to cigarettes and could help smokers quit or reduce the number of cigarettes they smoke. Heavy cigarette smoking during pregnancy can increase the chances of:

- Miscarriage
- Cleft lip and/or palate (an opening in the upper lip or the roof of the mouth)
- Preterm delivery (birth before week 37)
- Low birth weight (weighing less than 5 pounds, 8 ounces [2500 grams] at birth)
- Sudden infant death syndrome (SIDS)
- Problems with getting pregnant (infertility)
- Ectopic pregnancy (when a fertilized egg implants and grows outside the uterus)
- Placenta previa (placenta blocks the birth canal)
- Placental abruption (placenta breaks away from the uterine wall early)

Cigarette smoking can also have an impact on your baby's health after birth. Smoking has been associated with a higher chance of asthma, childhood obesity, and behavioral problems. See our factsheet on cigarette smoking here.

While pregnancy is a big motivation for women to quit smoking, quitting can be hard. This leads pregnant women to find an alternative that might make the quitting process easier like vaping. The Food and Drug Administration (FDA) does not recommend vaping to help people quit smoking. The use of vape products among non-pregnant patients found no evidence that they help in the effort to quit cigarette smoking. In fact, 2 out of 3 people who use vapes continue smoking cigarettes as well (known as "dual use").

Vaping is not a safer alternative to cigarette smoking in pregnancy.

Health experts recommend that pregnant women avoid all smoking including vaping. Any pregnant woman who is quitting smoking should talk with their health care provider to discuss a plan that is suitable to them. You can also contact resources such as the National Quitline Network (1-800-QUIT NOW) for additional support. You can find more resources to help you quit smoking here. See our factsheet on vaping here.

Quitting is best for you and your baby so go ahead and clear the air!

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Spring break is often associated with young college students flocking to the beaches to take a break from their studies. However, it is now embraced by a diverse crowd, including families with pregnant and breastfeeding women. Spring break typically takes place between March and April each year, leading to masses of people traveling by planes, trains, and automobiles. Fun times are possible for everyone, and we have guidance to increase the chances that your travels and experiences will be comfortable and safe for you and your baby.

Check-In with Your Doctor

For most pregnant women, traveling by airline, train, car, or bus is generally safe until close to their due date. Regardless of your trimester, a quick check-in with your doctor is essential to ensure you are cleared to travel.

- **First Trimester**: If you are experiencing pregnancy-related nausea, prepare ahead with needed medications and a plan to stay hydrated.
- **Second Trimester**: If you are healthy, this is a great time to travel.
- **Third Trimester**: You should be fine to travel, but keep in mind that if you go into early labor, you don't want to be far from high-quality obstetrical care. Check for hospital locations at your destination.

Check for Infectious Disease Warnings

If you are traveling outside of the U.S., check for disease warnings or recommended vaccines for your destination on the CDC Travelers' Health page. Additionally, if your destination has mosquitoes, use insect repellants to reduce the risk of exposure to infectious diseases.

Sun Exposure and Heat

Prolonged sun exposure can lead to overheating and dehydration, and in severe cases, heat stroke. High fever is a potential concern for pregnant individuals in any trimester. Prevention is key:

- Keep hydrated.
- Protect against direct sun for prolonged periods (sit under an umbrella or go indoors).
- Use sunscreen.
- Drink plenty of water.
- Avoid alcohol and limit caffeine, as they can increase dehydration.

Sunscreen

Everyone, including pregnant and breastfeeding women, should use sunscreen year-round. While there is some evidence that chemical sunscreens can penetrate the body in very small amounts, the American College of Obstetricians and Gynecologists (ACOG) recommends the use of effective sunscreen. For breastfeeding women, remember that sun exposure does not provide enough vitamin D for your baby; the American Academy of Pediatrics recommends 400 IU of vitamin D daily for breastfed babies.

Dietary Concerns

One of the highlights of travel is enjoying local food. For pregnant women, the risks from food-borne illnesses remain the same whether at home or on vacation. Avoid unpasteurized milk products, undercooked meats, and fish from risky categories.

Alcohol

Alcoholic beverages may be a destination goal for many, but pregnant and breastfeeding women are urged to continue following the warnings:

- **Pregnant Women**: It is crucial to avoid alcohol, as there is no known safe amount to drink. The risks to the developing baby are significant and can be devastating. Increasingly, restaurants are creating delicious and inviting mocktails (non-alcohol) and other beverages, offering an alternative that does not single out a person from the crowd.
- **Breastfeeding Women**: Limiting alcohol is beneficial as it can decrease the amount of breastmilk produced. It is recommended to breastfeed after two hours per drink to reduce the risk of exposure to the baby and developing brain.

Following these recommendations and reminders can help prevent exposures and experiences that could later cause grief and anxiety. Prepare well and enjoy your holiday! Ideally, a well-planned spring break will lift your spirits, provide a mental health break, allow you to enjoy new or favored foods, and create new and wonderful memories.

References and Additional Information:

CDC:

https://wwwnc.cdc.gov/travel/page/sun-exposure

https://www.cdc.gov/niosh/heat-stress/about/illnesses.html

https://wwwnc.cdc.gov/travel/page/sun-exposure

https://www.cdc.gov/breastfeeding-special-circumstances/hcp/diet-micronutrients/vitamin-d.html

https://wwwnc.cdc.gov/travel

ACOG

https://www.acog.org/womens-health/faqs/travel-during-pregnancy

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I recently received a phone call from Molly. Molly told me that she had just found out that she was pregnant; this was a surprise, but a welcome one. However, Molly confessed that she smokes a pack of cigarettes per day and her doctor recommends that she quit smoking since cigarettes can present a number of hazards for her pregnancy and baby. Molly's friend told her that e-cigarettes were safe in pregnancy and would help Molly with her efforts to reduce use of traditional cigarettes. Molly wanted to be sure. "Don't both cigarettes and e-cigarettes both contain nicotine," she asked?

What are e-cigarettes?

'E-cigarettes' is short for ***electronic nicotine delivery system***, sometimes also referred to as vapes, e-hookah, or other slang names. E-cigarettes utilize a device that heats up nicotine-containing fluid from a cartridge, which can then be inhaled as a vapor. Using an e-cigarette does have the potential to avoid some of the hazardous compounds found in traditional cigarettes such as tar and cadmium. However, e-cigarettes are a relatively new product and not very well regulated. Some e-cigarette fluids contain a lot of nicotine while others very little. They often have other substances added to them including preservatives and flavorings. Many of these agents have not been studied regarding their safety in pregnant women.

All of this makes it difficult to draw accurate conclusions about what risk e-cigarettes might present to a pregnant woman and her baby. What we do know is that traditional cigarettes and nicotine (the chemical which is in both tobacco and e-cigarettes) ***do*** present a risk for a wide number of issues including birth defects (cleft lip and palate), miscarriage, and poor growth in the developing baby. In addition, substituting e-cigarettes for traditional cigarettes is not a proven way to quit smoking, and in some cases, people continue to smoke conventional cigarettes as well as e-cigarettes which makes the exposure to the baby even larger. Scientists are still learning about this, and most public health agencies recommend behavioral approaches as the safest strategy for pregnant women who are trying to quit smoking.

Molly is smart to ask about the safety of e-cigarettes before she uses them. She also shows how much she cares about herself and her baby by trying to decrease smoking as much as possible! I suggested she speak with her healthcare provider about strategies for quitting. I also told her about free services like the CDC's Smoker's Quitline (1-800-784-8669).

MotherToBaby has fact sheets on e-cigarettes, cigarette smoke and vaping...

... and people can call (866-626-6847), text (855-999-3525), email, or chat to speak with a specialist on exposures in pregnancy.

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By Lauren Kozlowski, MSW, MPH, MotherToBaby Georgia

Carly called and I could hear the stress in her voice immediately. She had been smoking marijuana on weekends and having a glass of wine most evenings with her dinner. She just found out she was pregnant with her fifth child. Carly knew her baby could suffer if she did not change her use of alcohol and marijuana. Carly was scared, so she contacted MotherToBaby. We were able to discuss what kinds of risk the substances she had used may have, and I shared information with her that she could talk to her doctor about. Carly's story immediately came to mind when talking about Birth Defects Prevention Month's **Tip #3: Boost your health by avoiding harmful substances during pregnancy, such as alcohol, tobacco, marijuana and other drugs.**

Alcohol

Alcohol is actively advertised as a way to relax after a hard day, and it's almost always a part of celebrations. Alcohol

is legal to purchase in any amount for most adults 21 and older, making it very accessible. Changing your lifestyle to not drink any alcohol during pregnancy may seem hard, but it is worth it for the health of your developing baby. Though having one drink likely does not mean your baby will automatically have health problems, no amount of alcohol has been proven safe during pregnancy. This means that not drinking alcohol at all during pregnancy is your best bet. Alcohol can cause a range of issues for the health of your child. Some are physical birth defects, while others are related to controlling emotions effectively and learning abilities. Some of these issues last long after birth and can have lifelong effects on your child.

Cigarettes & e-cigarettes

Smoking and the use of tobacco products are activities that many associate with stress reduction and, like alcohol, can be hard to stop. Cigarette smoke contains more than 4,000 chemicals and toxins, including nicotine, tar, arsenic, lead, and carbon monoxide. Some of these chemicals cross the placenta and lower the amount of oxygen and food available for a developing baby. Babies born to mothers who smoke are at increased risk for being born too small (with low birthweight) and prematurely (before 37 weeks of pregnancy). Babies born too small and too early are more likely than other babies to have health complications and may need to stay in the hospital longer. Some studies suggest that babies born to moms who smoke are at risk of having an oral cleft, a birth defect where the lip or roof of the mouth does not fully close. Not smoking is best for you and your baby during pregnancy. Every little bit counts, so even reducing the amount can be helpful to your baby!

In comparison to traditional cigarettes, we know very little about the safety of e-cigarettes (or vaping) during pregnancy. This is because e-cigarettes are largely unregulated, and little research has been done on them. While some moms-to-be may view e-cigarettes as safer alternatives than traditional cigarettes, e-cigarette solutions contain several of the same reproductive or developmental toxins that are found in traditional cigarettes, like nicotine, cadmium and lead. So until more studies have been done on the safety/risk of e-cigarettes, it is best for moms-to-be not to use them.

Marijuana and other street drugs

Another way to boost your health during pregnancy is to not use harmful drugs. For example, women may think marijuana may help with nausea and vomiting (morning sickness). Though we still need more research, studies in animals have shown that exposure to marijuana in the womb may harm a baby's brain development. Marijuana is unregulated in most places, so you don't know what may be in it – certain chemicals, pesticides or other drugs may cross the placenta and impact your baby. In addition to smoking marijuana, using substances that include THC (the active ingredient in marijuana), such as edibles and oils, carries the same potential to affect a baby's brain development. No amount of marijuana or THC has been proven safe to use during pregnancy.

Other street drugs, like cocaine, heroin, LSD, MDMA (ecstasy or Molly), and methamphetamine, also are harmful during pregnancy. Using these kinds of drugs during pregnancy increases a baby's risk for miscarriage, preterm birth, birth defects and neonatal abstinence syndrome (NAS). NAS is a group of conditions caused when a baby withdraws from certain drugs she's exposed to in the womb before birth. NAS is most often caused when a woman takes drugs called opioids during pregnancy. Not a single one of these drugs has a beneficial effect on pregnancy or a developing baby – so for your baby's sake as well as your own, a drug-free pregnancy is a healthier pregnancy.

It is important to realize that giving birth to a baby with ten fingers and ten toes – who looks healthy at birth – is not the end of the story. Effects caused by the use of alcohol, tobacco and other drugs during pregnancy can take a while to show. As a child develops and reaches or fails to reach developmental milestones, only then is it possible to evaluate the long-term effects of prenatal substance exposure on things like the ability to learn and manage emotions. While every pregnancy carries some risk that is out of anyone's control, we want to encourage women to focus on areas of their health that they do have some control over. Taking care of yourself and your health means a healthier baby. Doing what you can to boost your health by avoiding harmful substances during pregnancy is a great place to start!

If you are struggling with substance addiction, talk to your health care provider. You can also find help and treatment referrals by visiting the Substance Abuse and Mental Health Services Administration (SAMSHA) website or by calling their national helpline, 1-800-662-HELP (4357).



Lauren Kozlowski, MSW, MPH is serving as the Program Coordinator for MotherToBaby Georgia. She graduated from Boston University with both a Masters of Social Work and a Masters of Public Health. She has experience working with families in both an educational setting, as well as in housing and health, allowing her to recognize the multiple factors contributing to the ability of women and children to thrive. She enjoys living in Atlanta and exploring what the city has to offer.

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Vaping during Pregnancy: Not Just a Bunch of Smoke

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.

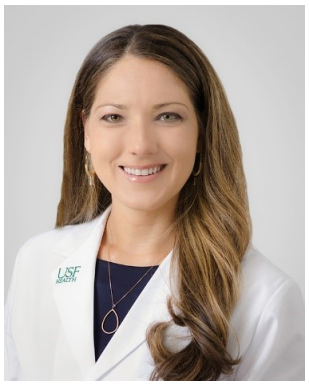
> ***Dear Moms Struggling with Opioid Addiction,***
> ***Please know that I see you and I want to help.***

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



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References

Centers for Disease Control and Prevention. Opioid painkiller prescribing: where you live makes a difference. Available at: https://www.cdc.gov/vitalsigns/opioid-prescribing. Retrieved March 7, 2017.

Substance Abuse and Mental Health Services Administration. Drug Abuse Warning Network, 2011: national estimates of drug-related emergency department visits. HHS Publication No. (SMA) 13-4760, DAWN Series D-39. Rockville (MD): SAMHSA; 2013. Available at: https://www.samhsa.gov/data/sites/default/files/DAWN2k11ED/DAWN2k11ED/DAWN2k11ED.pdf.

National Center for Health Statistics. NCHS data on drug-poisoning deaths. NCHS Factsheet. Available at: https://www.cdc.gov/nchs/data/factsheets/factsheet_drug_poisoning.htm. Retrieved March 8, 2017

Desai RJ, Hernandez-Diaz S, Bateman BT, Huybrechts KF. Increase in prescription opioid use during pregnancy among Medicaid-enrolled women. Obstet Gynecol 2014;123:997–1002.

Jones HE, Finnegan LP, Kaltenbach K. Methadone and buprenorphine for the management of opioid dependence in pregnancy. Drugs 2012

The American College of Obstetricians and Gynecologists. Opioid Use and Opioid Use Disorder in Pregnancy. Committee Opinion Number 711, August 2017.

Patrick SW, Davis MM, Lehmann CU, Cooper WO. Increasing incidence and geographic distribution of neonatal abstinence syndrome: United States 2009 to 2012 [published erratum appears in J Perinatol 2015;35:667]. J Perinatol 2015;35:650–5.

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