Weighing In: How GLP-1s Fit into Your Pregnancy Plans

Thinking about pregnancy while also worrying about weight can feel stressful. You are not alone—about 6 in 10 women in the U.S. are overweight or have obesity. Talking about weight can be hard, but it is an important part of planning for a healthy pregnancy.

This blog will explain how weight can affect pregnancy, what GLP-1 medications are, and what we know so far about their use before and during pregnancy.

Why Is Managing Weight Before Pregnancy So Important?

Being overweight or having obesity increases the chance for several pregnancy-related problems, including:

- Miscarriage
- Birth defects
- Preterm delivery (before 37 weeks)
- Gestational diabetes
- High blood pressure during pregnancy
- Stillbirth
- Cesarean delivery
- Thromboembolic events (blood clots)

You can read more about obesity and pregnancy in our factsheet here:
https://mothertobaby.org/fact-sheets/obesity-pregnancy/

The good news is even a small weight loss—just 5–7% of your body weight—before pregnancy can improve health and pregnancy outcomes. Starting before you get pregnant is best. Some people do this through healthy eating and exercise, while others may need surgery or medication.

What Are GLP-1 Medications?

GLP-1s are medicines that act like a natural hormone in your body. They help control blood sugar, slow down digestion, and make you feel full longer. This can lead to weight loss. Most GLP-1s are given as shots. The best-known ones are liraglutide (Victoza®) and semaglutide (Ozempic®, Wegovy®, Rybelsus®). These are also the ones most studied in pregnancy so far.

Can I Use GLP-1s While Trying to Get Pregnant?

The current product labels recommend stopping GLP-1 medications at least 2 months before pregnancy. The time it takes the body to process medication is not the same for everyone. In healthy non-pregnant women, it can take up to 6 weeks, on average, for most of the GLP-1s to be gone from the body.

Stopping the medicine can sometimes cause weight gain, which can feel frustrating. Because of this, some people choose to continue until they know they are pregnant. It's best to talk with your healthcare provider about the risks and benefits for you.

What Do We Know About GLP-1s in Pregnancy?

Here's what research tells us so far:

- Studies including over 1,000 women exposed to GLP-1s during the first trimester have not shown an increased chance of birth defects.
- A study of 168 pregnancies with first-trimester exposure to GLP-1s did not show increased chance of miscarriage, preterm delivery, stillbirth, or SGA infants (small for gestational age-infants whose birth weight is below the 10^{th} percentile for their gestation age).

It's important to remember that every pregnancy has a baseline risk:

- Out of all babies born each year, about 3 out of 100 (3%) will have a birth defect
- 15 to 20 out of every 100 (15-20%) pregnancies end in miscarriage

These typically occur in the first trimester — whether or not medication is used.

Why Are GLP-1s Not Recommended During Pregnancy?

At this time, continuing GLP-1s after pregnancy is confirmed is not recommended for two main reasons:

- Weight loss during pregnancy is not advised. Losing weight while pregnant may increase the chances of having a baby with SGA, which can lead to complications such as:
    - Low oxygen levels
    - Low Apgar scores (grading system in newborns to define their wellbeing)
    - Meconium aspiration (breathing in the first bowel movement)
    - Hypoglycemia (low blood sugar)
    - Difficulty maintaining body temperature
    - Polycythemia (too many red blood cells)

- We lack research on GLP-1s in the second and third trimesters. Without research studies on the use in the second and third trimester, we don't know if use of GLP-1s could increase the chances of other pregnancy-related problems.

Finding the Path That's Right for You

Your journey is unique, and there's no simple answer. That's why it's so important to talk with your healthcare provider about the best way to approach weight management before pregnancy. As Dr. Sarah Obican so masterfully said in a previous Baby Blog post:

"Each of us are beautifully individual" — and our weight loss and pregnancy journeys are beautifully individual, too.

Final Thoughts

Whether you're already on a weight loss journey or just starting to think about pregnancy, you deserve support and trusted information. We're here to help you every step of the way.

Helpful Links:

Factsheets:

- Obesity and Pregnancy:https://mothertobaby.org/fact-sheets/obesity-pregnancy/
- Semaglutide: https://mothertobaby.org/fact-sheets/semaglutide/

Baby Blogs:

- Battling Obesity Ahead of Pregnancy is 'Beautifully Individual':https://mothertobaby.org/baby-blog/battling-obesity-ahead-of-pregnancy-is-beautifully-individual/

Podcasts:

- Ep. 84: GLP-1 Medications & Pregnancy: What We Know So Far: https://mothertobaby.org/podcast/ep-84-glp-1-medications-pregnancy-what-we-know-so-far/
- Ep. 64: Weight Loss and Ozempic in Pregnancy: https://mothertobaby.org/podcast/ep-64-weight-loss-and-ozempic-in-pregnancy/

Have questions about a specific medication or concern? Reach out to our MotherToBaby experts by phone, text, email or live chat at MotherToBaby.org.

Weighing In: How GLP-1s Fit into Your Pregnancy Plans

Tanya called in on a Monday morning. “I’m getting married in a few months and we want to start trying to get pregnant right away. What should I be doing now to have the best chance of a healthy baby?”

Preconception health and pregnancy planning present a terrific opportunity to assess a wide range of factors that can give your baby the best start. This blog will outline the things to consider, as I relayed to Tanya:

Your Personal Health

Are you generally healthy? If you already get headaches or have acid reflux, know that pregnancy can make these more frequent. Ask your doctor if the way you treat these common conditions should change once you are pregnant. Ask about your current exercise routine and if you need to alter it during pregnancy. Get checked for sexually transmitted infections because some may not show symptoms. Also discuss your medications – some should be stopped before you start trying to conceive, such as Valproic acid, leflunomide (e.g. Arava®), teriflunomide (Aubagio®), methotrexate, and isotretinoin (e.g. Accutane®) to name just a few. For others, you’ll want to weigh the risks vs. the benefits with your health provider before you conceive. Talk with your doctors now to make a plan.

Caffeine

Do you drink caffeinated coffee, tea, or soda? What about energy drinks, protein powders, or Kombucha? MotherToBaby’s fact sheet on caffeine may put your mind at ease and encourage you to think about all your beverage options.

Body Weight

Is your weight a concern? One of the best things you can do before conception is to get to a healthy weight. Women who are overweight or obese have increased risks for miscarriage, birth defects, gestational diabetes, high blood pressure and preeclampsia, and unplanned cesarean birth. Now is a good time to meet with a nutritionist or go on a sensible diet to get to a healthy weight in anticipation of pregnancy. Once you are pregnant, continue to watch what you eat but don't try to lose weight. Weight gain is inevitable during pregnancy but guidelines from the American College of Obstetricians and Gynecologists (or ACOG, the leading professional society for OB/GYNs) advise women to gain anywhere from 11-40 pounds, depending on your pre-pregnancy weight. It's a myth that you need to "eat for two," so don't set yourself up for postpartum weight gain by eating more than you should. After delivery of an average 7-8 lb. baby, you may lose 2 lbs. in amniotic fluid, 1.5 lbs. of placenta, 5-7 lbs. in blood volume, and 2 lbs. as the uterus returns to its normal size. That could still leave you with 10 pounds of excess weight, or more if you gained more weight during the pregnancy. Some women never take off those extra pounds, and their weight creeps up with successive pregnancies and age, which can lead to pregnancy complications and chronic health problems later on. See our exercise fact sheet for more information.

Chronic Health Conditions

Do you have chronic health conditions like diabetes, high blood pressure, migraines, asthma, high cholesterol, heart conditions, varicose veins, or anemia? Do you have an autoimmune disease like Crohn's or ulcerative colitis, lupus, rheumatoid arthritis, ankylosing spondylitis, multiple sclerosis, psoriasis or psoriatic arthritis? Meet with your obstetrician for a "preconception" appointment to discuss how a pregnancy might impact your health, and how your health might affect a future pregnancy. Your specialist can provide an important opinion too. A maternal-fetal medicine specialist (MFM) is a doctor who specializes in high-risk pregnancies, and consulting with a MFM once you are pregnant could help you learn how to optimize your and your baby's health.

Mental Health

What about your mental health? If you have a history of anxiety or depression, ADHD or other conditions, ask your psychiatrist and OB about treatment, and don't make changes before you do. Many medications can be continued during pregnancy and while breastfeeding. In fact, mental health is incredibly important – for example, when a woman doesn't treat her mood disorder or inadequately treats it, some studies suggest risks for miscarriage, premature birth, low birth weight, and preeclampsia. Talk therapy is vitally important too. And if you struggle with mental health concerns during the pregnancy, you are at risk for postpartum depression. Let's face it – pregnancy and caring for a new baby is stressful, so now is the time to marshal your helpers – friends, relatives, therapists and doctors – to ensure you have enough support. Your obstetrician should ask about mental health but if not, speak up. Your doctor can be your ally here, helping you get treatment and addressing concerns related to pregnancy and postpartum mental health. And MotherToBaby can give you an overview of the research related to any prescriptions you might choose to take.

Dental Health

Have you seen a dentist lately? Oral health can impact a pregnancy, meaning that if you have swollen or bleeding

gums, a toothache or an infection, it can increase risks to the pregnancy. If you need to have a dental x-ray, take antibiotics, or have local anesthesia for a dental procedure, these are generally acceptable during pregnancy, but best to complete before you get pregnant. Contact MotherToBaby for more details.

Your Workplace

Where do you work? MotherToBaby can give you information to minimize exposures in a veterinarian office, dry cleaners, salon, laboratory/hospital, imaging center, pest control service, or other business. Your occupational safety department can recommend personal protective equipment (PPE) and tell you about ventilation that may be in place to ensure workplace safety. Safety data sheets (SDS) give an overview of chemicals used in industry and are available online or at work.

Food Safety

Read up on food safety and learn how to minimize your exposure to foods that have commonly been associated with foodborne illness such as E. coli or listeria. Get in the habit of washing your fresh fruits and vegetables well. Check out other blogs on our website too.

Vitamins and Supplements

Have you started taking a prenatal vitamin? Are you getting enough folic acid? ACOG recommends that women take at least 400 mcg of folic acid before getting pregnant and at least 600-800 mcg/day once they are pregnant. This can help prevent birth defects of the brain and spinal cord. Call MotherToBaby if you want to learn the recommended daily intake for specific vitamins or minerals. In general, taking more than what is recommended is not advisable – we haven't studied how mega-doses of vitamins may impact a pregnancy. Other supplements beyond taking a prenatal vitamin are not advisable either – the Food & Drug Administration (FDA) doesn't supervise their manufacturing plants and past surveys have shown some supplements actually contain contaminants. Furthermore, we've seen instances where the label didn't match the contents of the bottle and could cause ill effects. Pregnant and breastfeeding women should avoid herbal supplements unless specifically recommended by your doctor.

Alcohol, Cannabis, and Tobacco

Do you smoke cigarettes? Do you use cannabis for medicinal or recreational purposes? Do you drink alcohol? Recent research has demonstrated that marijuana use very early in pregnancy causes changes in brain development, which could result in behavioral or learning challenges we see later in the child's life. Cigarettes increase risks for pregnancy loss, among other things. And alcohol is known to cause a variety of birth defects known as fetal alcohol spectrum disorder (FASD). We don't believe that there is a "safe" amount of alcohol which when consumed doesn't cause issues for a developing child. Now is the time to quit smoking, drinking, and using cannabis – your baby will be heathier for it. MotherToBaby can provide resources, or check with your doctor.

Vaccinations

Are you up to date on all your vaccines? Did you get a flu shot this past season? You don't want a vaccine-preventable illness to have an impact on your pregnancy. Flu infection can increase risks for more severe symptoms, longer-lasting illness, pregnancy loss and premature delivery, which can have a lifelong impact on your baby. Flu vaccine helps prevent infection. Another benefit to vaccinating during pregnancy? Studies show the protection extends to your baby, and gives them a little extra immunity from birth until they can receive vaccines. Also good to know: some vaccines can be given and are recommended during pregnancy, like a flu shot or TDAP, but others are best given before you conceive to avoid a small risk of spreading the illness to the fetus (e.g. the measles, mumps, and rubella (MMR) vaccine, as well as the Varicella (chicken pox) vaccine) – so try to get these done at least a month before trying to conceive. Check your medical records to see the last time you received any of these vaccinations. If you don't know if you were previously vaccinated, your doctor can draw blood to check if you have immunity.

Your Pets

Do you have a cat? There is some concern in pregnancy about an infection called toxoplasmosis, which is caused by a parasite that can be found in cat feces. Read our blog for more info on what you can do to prevent this infection if you have a fur baby at home.

Other Illnesses

Do your upcoming travel plans involve travel to a warm tropical place? Check out our Zika fact sheet to learn more before you book nonrefundable tickets. In general, women will want to wait to try to conceive for eight weeks from the time of your return home; the wait time is three months if your male partner travels with you. COVID-19 is also spreading around the globe and our fact sheet can give you the latest information on whether and how it could affect a pregnancy.

Finally, your obstetrician or primary care doctor would be glad to see you for a Preconception consultation. Make an appointment to discuss your personal history and health. It's a great way to get you and your baby off to the best start.

Weighing In: How GLP-1s Fit into Your Pregnancy Plans

By Patricia Markland Cole, MPH, MotherToBaby Massachusetts

November is Diabetes Awareness Month and both of my parents in recent years have been diagnosed with Type 2 diabetes (a preventable form of diabetes where the body can no longer control the amount of sugar in the blood), so it's a particularly relatable month for me. Because "the apple does not fall far from the tree" the discussion with my doctor has started to change – Now I am at risk., Therefore, if I become pregnant, a family history of diabetes would put me at increased risk of developing diabetes during pregnancy (called gestational diabetes mellitus, or GDM). I have to think more about living a healthy lifestyle to lower my risk.

Here's what we know about GDM:

- GDM is still a common public health problem and could impact 1 in 10 women. It has been considered a national health priority.
- GDM poses an elevated chance for pregnancy complications such as:
    - Preeclampsia (high blood pressure, swelling and protein in the urine)
    - Preterm birth (birth before 37 weeks of pregnancy)
    - C-sections
    - Development of Type 2 Diabetes (35-70% of women who had GDM will develop Type 2 Diabetes 10 to 15 years after pregnancy; 15-25% will develop it within 1 to 2 years after pregnancy)
    - Renal disease (problems with kidney function)
    - Cardiovascular Disease (problem with the heart and blood flow)
- GDM also poses increased short- and long-term risks for the infant, including:
    - Increasing the chance of complications at birth
    - Difficulty breathing
    - Large in birth size and weight (over 10 pounds)
    - Increased chance of developing Type 2 diabetes
    - Childhood Obesity

There are quite a few risk factors for GDM that cannot be changed such as age, family history of diabetes, and race; those over age 35, those with a family history of diabetes, and non-whites are at higher risk. However, some risk factors are changeable like weight, diet and exercise. The funny or peculiar thing about diabetes and pregnancy is that while there are many reports of how beneficial diet, exercise and maintaining a healthy weight are in reducing general health risks, the studies that specifically examined the effectiveness of reducing the rate of GDM during pregnancy through lifestyle changes versus routine or standard care have been mixed. Sometimes the results showed that it did

reduce the rate of GDM, but other times it did not. Surprising, right? Here are some of those mixed results:

For women who did not have the typical risk factors, researchers studying diet and exercise interventions did not always find a difference in the rate of GDM between comparison groups. It has been stated that the risk of GDM was four to eight times higher in women who were overweight or obese. However, methods to reduce excessive weight gain during pregnancy found no significant change in GDM and increased physical activity had only a small effect. However not all of the results were mixed; some studies actually had strong results for other health benefits. For example, one study showed a 50% reduction in the rate of Type 2 diabetes diagnosis for women who had been previously diagnosed with GDM when lifestyle changes were introduced, while another study found a 95% reduced risk for gestational hypertension and a 90% reduction in preeclampsia for pregnant women with obesity. Why such mixed results? Some fault study design flaws. For example, the studies were different in the methods used to screen and diagnose GDM, the duration and time the study was conducted and the differences among the women that participated, just to name a few.

SO…Can gestational diabetes be prevented?
According to the author of one research article I read: “The answer remains optimistic.” Do not let the mixed results give you a reason to not be the healthiest you can before going into pregnancy. There is overwhelming proof that a healthy weight, physical activity and a healthy diet are important to one’s overall health and can reduce your chance of developing sickness and disease. The earlier that one starts living a healthy lifestyle, the more there can be an impact in reducing the rates for GDM and its associated risks for childhood obesity and Type 2 diabetes. Surprisingly, many women in the studies were not asked about their diets during pregnancy. It will take a multi-level approach and better study designs to come to some better conclusions. I am sure that once research designs and methods are tweaked, we’ll have a much better idea of how GDM can be prevented or reduced because there will be more proof in the pudding … and how sweet that will be!

References:
Kennelly MA, McAuliffe FM. 2016. Prediction and preventon of Gestational Diabetes: an update of recent literature. Eur J Obstet Gynecol Reprod Biol. Jul;202:92-8.

Phelan S.. 2016. Windows of Opportunity for Lifestyle Interventions to Prevent Gestational Diabetes Mellitius. Am J Perinatol. Nov;33(13):1291-1299.

Rochan A, et al. 2016. Gestational diabetes mellitus: does an effective prevention strategy exist? Nat Rev Endocrinol. Sep;12(9):533-46.

Zhang C, et al. 2016. Risk factors for gestational diabetes: is prevention possible? Diabetologia. Jul;59(7):1385-90.

Patricia 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.

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, like medications or diseases 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.