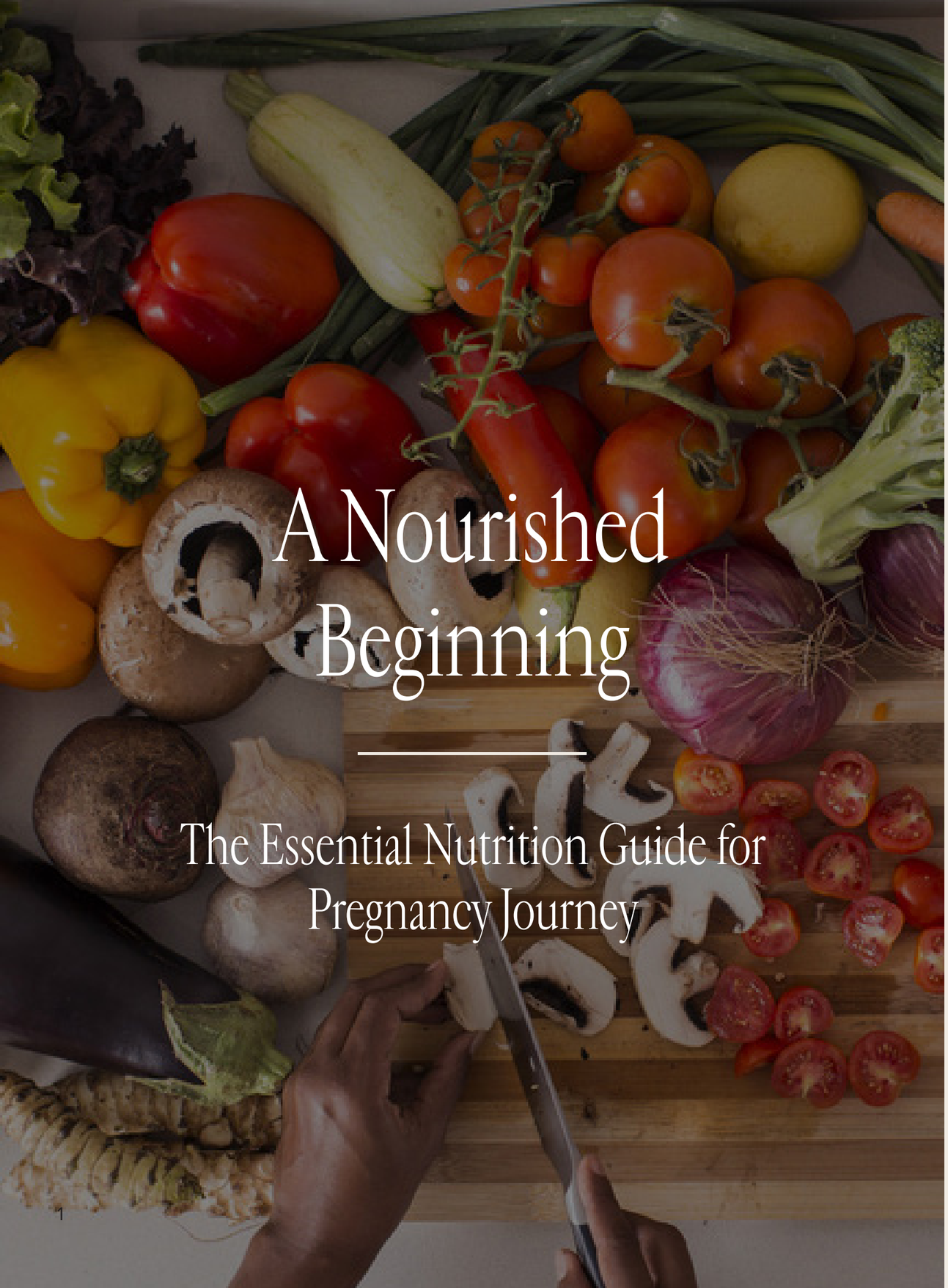
viva eve

The Pregnancy Nutrition Guide



A Nourished Beginning

The Essential Nutrition Guide for Pregnancy Journey

Congratulations!

Your Registered Dietitian, Tamsin (Tammy) Jordan, is here to help you maintain a happy & healthy pregnancy through nutrition & wellness. Read her welcome letter below to get started.

There’s something truly magical about creating life. The ability of our bodies to build a human from scratch has always amazed me. This wonder is what inspired me to specialize in women’s health, particularly in pre-conception and pregnancy care. As a registered dietitian, I’m here to provide the nutritional support and guidance that expecting mothers need to take care of themselves and their growing babies. It's very rewarding to be able to help women during this special time in their lives.

During my own pregnancies, I was amazed by the week-by-week transformations happening inside me. My body knew exactly what to do, no instructions needed. It’s easy to think our bodies are just "programmed" to handle everything, but while they are incredibly resilient—even in tough circumstances—there’s so much we can do to boost our health, and in turn, our baby’s health too.

Whether you’re planning for a baby or already expecting, what you eat before, during, and after pregnancy makes all the difference. But here’s the good news—you don’t need to make drastic changes! Small, consistent tweaks can have a big impact on your pregnancy and give your baby a healthy start.In this guide, I’ll walk you through the essentials of pregnancy nutrition and give you the tools to feel confident every step of the way.

In Good Health,
Tammy Jordan, MS, RD, CDN
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Key Takeaways

- A healthy diet before, during, and after pregnancy is key for both you and your baby's health.
- Nutrition needs increase as pregnancy progresses and during breastfeeding. In the first trimester, calories are low, but your need for micro-nutrients, like folate, choline, vitamin D, iron, and iodine is high.
- In the second and third trimesters daily calorie needs rise by 350 and 500 for women with a normal BMI, with variations for different body types or multiples.
- Take a high-quality prenatal vitamin throughout pregnancy and breastfeeding.
- Aim for 150 minutes of moderate exercise weekly.

Nutrition Highlights

- Focus on a whole foods diet, avoiding processed and sugary items.
- For morning sickness: eat small, frequent meals, boost protein, avoid fatty foods, and try salty, sour, or bland options. Add ginger to tea.
- Avoid high-mercury fish like king mackerel, shark, and swordfish.
- Limit caffeine to 200mg per day.
- Cook all food thoroughly, especially meat, and avoid unpasteurized products.
- Aim for 90-150g of quality carbs (veggies, yogurt, dairy, legumes, nuts) to help manage gestational diabetes.
- Use the healthy plate method to balance macro-nutrients.
- Eat omega-3 rich fish 2-3 times a week.
- Check your water and skincare safety with EWG.org.

Contents

First Trimester

Whats going on in my body?

From the moment of conception, the body undergoes remarkable changes to support a growing baby. These adaptations, driven by hormones, include increased blood volume, a higher resting heart rate, lower blood pressure, and greater lung capacity. While these shifts can bring discomforts like heartburn, constipation, and aches, they are all part of the body's incredible work to nurture your baby around the clock.

The first trimester can be challenging for many expectant moms. Common issues like nausea, vomiting, and tiredness—often referred to as 'morning sickness'—are largely caused by hormonal changes affecting your brain. Check out our FAQ section for tips on symptom relief. For some, these symptoms ease after a few weeks, but for others, they can escalate into Hyperemesis Gravidarum (HG). Research shows that a hormone called GDF15 in a woman's blood during pregnancy contributes to HG's severity. If you experience ongoing symptoms beyond the first trimester, especially vomiting and significant weight loss, it's crucial to inform your doctor. Other common complaints, like constipation and heartburn, can also arise due to hormonal shifts.

What other changes can I expect?

An increased appetite is another common change in the first few months of pregnancy. Your body works overtime to prepare for your baby's long stay and nutrients are being diverted away from you to the baby to support that. It's important to honor your hunger signals. That said, the old adage of 'eating for two,' is misguided and no additional calories are required at this stage to support the baby's growth.

The Importance of Prenatal Nutrition

A healthy diet before, during and after pregnancy can make all the difference to the health of you and your baby. Everything you eat will feed your baby, so choose carefully. Healthy foods provide nutrients for your baby's bones, heart, nervous system, brain, and more!

Benefits of optimizing your diet around pregnancy include:

- Reduced risk of pregnancy-related complications, including elevated blood sugar, excessive weight gain, high blood pressure, anemia, constipation, & heartburn.
- A smoother postpartum recovery.
- A stronger, healthier foundation for future pregnancies

Prenatal Nutrition Basics

Nutritional needs increase throughout pregnancy and breastfeeding. In the first trimester, while calorie demands are still low, the need for key nutrients is high, as this is a crucial time for the baby's development. Hormonal changes during early pregnancy make the mother more sensitive to insulin, helping the body absorb and use glucose more efficiently.

Increased Needs:

Folate: Aim for 400 mg daily from food or prenatal vitamins. Good sources include leafy greens, beans, peas, walnuts, and fortified cereals. For easier absorption, look for "methylated" folate in vitamins.

Choline: Aim for 450 mg during pregnancy and 550 mg while breastfeeding. Choline supports healthy brain development. Foods like eggs, mushrooms, salmon, and edamame are great sources, and some prenatals include it for added convenience.

Vitamin D: Aim for 600 IU daily, though 4,000 IU of D3 may be better for maintaining healthy levels. Low Vitamin D can affect fetal growth and increase risks like preeclampsia and preterm birth. Most Vitamin D comes from sunlight, but foods like oily fish, fortified milk, and UV-exposed mushrooms are good sources too. Consider a deficiency test if you have risk factors like darker skin or limited sun exposure.

Iron: Pregnant women need 27 mg of iron daily, almost double the usual amount. Prenatal vitamins often meet this need, but iron-rich foods are important too. If you're anemic, talk to your Viva Eve provider about supplements. Pair iron with Vitamin C (like citrus or bell peppers) to boost absorption, and avoid milk or tea with meals as they can block it. Iron deficiency is more common in twin pregnancies.

Iron-rich food sources include red meat (beef, lamb, pork, veal, venison), chicken, fish, shellfish, and eggs. Heme iron, found in animal products, is more easily absorbed by the body, but non-heme iron from plant sources is also beneficial.

Here are some vegetarian sources of iron:

- **Legumes:** lentils, soybeans, tofu, tempeh, lima beans, black beans, chickpeas
- **Grains:** quinoa, fortified cereals, brown rice, oatmeal.
- **Nuts and seeds:** pumpkin, squash, pine, pistachio, sunflower, cashews, unhulled sesame
- **Vegetables:** tomato sauce, Swiss chard, collard greens.
- **Other:** blackstrap molasses, prune juice

Getting enough iron is especially important for pregnant women who are vegetarian or vegan and may be deficient.

Iodine - Important for baby's brain development and some prenatal supplements do not have enough. If you add salt to your food, make sure it is iodized salt. While Himalayan pink salt has an array of trace minerals, iodine is not added, same goes for kosher salt. Dietary sources of iodine include seafood (cod, tilapia, shrimp and salmon), dairy, and eggs.

Fiber - 28g per day recommended.
Sources: oatmeal, oatbran, nuts, seeds, fruits, vegetables, psyllium, whole grains. Eat veggies and fruit with the peel/ skin when possible. Adding different forms of fiber-rich foods to your diet on a daily basis can help alleviate constipation and keep you feeling full.

Water and non-caffeinated beverages - your blood volume increases significantly over the course of pregnancy, so drink up to keep yourself properly hydrated! More hydration is also needed to form amniotic fluid and aid digestion. Aim for 70-100 fluid ounces per day, that includes soups, broths and non caffeinated beverages.

Choose a Healthy Mix of Foods

There are lots of healthy choices in each food group! Choose a variety of foods you enjoy, including:

- **Whole Fruits -** like apples, berries, oranges, mangoes, and bananas.
- **Veggies -** like broccoli, sweet potatoes, beets, okra, spinach, peppers, black beans, edamame, and jimcama.
- **Whole Grains -** like brown rice, millet, oatmeal, bulgur, whole-wheat bread, and pasta.
- **Production Foods -** like lean meats and chicken, eggs, seafood, beans and lentils, nuts and seeds, and tofu.
- **Low-fat or fat-free dairy -** like milk, yogurt, cheese, lactose-free dairy, and fortified soy beverages (soy milk) or soy yogurt.
- **Oils -** like vegetable oil, olive oil, and oils in foods like seafood, avocado, and nuts.

Credit: Office of Disease Prevention and Health Promotion

How many extra calories do I need?

This is one of the most common questions I get asked at the start of pregnancy! You don't need extra calories during the first trimester unless you were underweight before pregnancy. Appetite, taste, and sensitivity to odors can change, so focus on eating what you can to manage nausea. Prioritize a healthy diet when possible, but don't stress the details. A good prenatal vitamin will cover essential micro-nutrients. Stay hydrated, rest, and take your prenatal daily— you're doing great!

Here is an overview of how many extra calories you need throughout pregnancy. BMI (Body Mass Index) is calculated by dividing a person's weight in pounds by their height in inches squared, then multiplying by 703. This formula helps determine if someone is underweight, of normal weight, overweight, or obese. It is easy to find a BMI calculator online if you are not sure.

BMI	First Trimester	Second Trimester	Third Trimester
Underweight BMI <18.5	+150 calories	+200 calories	+300 calories
Normal weight BMI <18.5 - 24.9	+350 calories	+350 calories	+500 calories
Overweight/ Obese BM > 25.0	No extra calories	+450 calories	+350 calories

Katz DL. Diet, pregnancy, and lactation. Nutrition in Clinical Practice. 2nd ed. Philadelphia: Lippincott Williams & Wilkins; 2008:299-309

Example of ~350 calories

- Two tbsp peanut butter with 6 celery sticks + 2 hard-boiled eggs
- 1 large banana +½ cup red berries + ½ cup whole milk greek yogurt (no added sugar) with sprinkle of chia seed
- 1 cup raw veggies (bell peppers, celery, carrots) + 2 tbsp hummus + ¼ avocado + 1 slice of wholegrain toast
- 1 IQ protein bar + 1 medium apple and + 2 thin slices cheddar cheese

Example of ~500 calories

- 3.5 ounces cooked salmon + 1 cup sliced cucumber + 1 cup chopped cherry tomatoes, a few olives + 1 whole grain pita with butter.
- ½ cup beans, salsa + 2 tbsp of plain greek yogurt on a small corn tortilla + 2 tbsp guacamole.
- 3.5 ounces cooked chicken + ½ cup brown rice + 1 cup of mixed roast carrots cooked in olive oil + ½ cup berries with whipped cream.
- ½ cup almonds + 2 squares of dark chocolate + packet of skinny popcorn.

Pregnant women typically need 2,200 to 2,900 calories a day to support fetal and placental growth. For those who are overweight, obese, or have gestational diabetes, the recommendation is usually 1,550 to 2,000 calories per day, but this can vary based on individual needs.

Do not diet at any point in your pregnancy. Restricting your calories or the consumption of certain foods can mean your baby might not get the nutrients it needs to grow.

Having Multiples? Carrying twins or triplets requires more daily calories. Guidelines vary, but in general consensus is that for multiples women should consume approx 300 kcals extra per baby in the first trimester, 340 kcals per baby in the second trimester, and 452 kcals in the third trimester.

Other Changes During Pregnancy

During pregnancy, you might crave pickles or suddenly hate your favorite food—it's totally normal! These weird cravings and aversions aren't just in your head - they're likely due to brain changes. And no, your chocolate craving doesn't mean you need magnesium (but we won't judge if you indulge!).

Food and Drinks to Limit

- Fish with high mercury levels can harm your baby. Fish absorb mercury from the water and other fish. Avoid high-mercury fish like shark, swordfish, king mackerel, tilefish, and albacore tuna. When eating fish, cook to 145°F until it flakes easily. Shrimp, lobster, and scallops should turn milky white. Cook clams, mussels, and oysters until their shells open.

What is a serving? As a guide, use the palm of your hand.

Pregnancy and breastfeeding:
1 serving is 4 ounces

Eat 2 to 3 servings a week from the "Best Choices" list
(OR 1 serving from the "Good Choices" list).

Best Choices

Anchovy	Flounder	Squid
Black Sea Bass	Haddock	Tilapia
Butterfish	Herring	Trout, freshwater
Catfish	Oyster	Tuna, canned light
Clam	Salmon	(includes skipjack)
Cod	Sardine	Whitefish
Crab	Scallop	Whiting
Crawfish	Skate	

Good Choices

Bluefish	Mahi	Tilefish (Atlantic
Carp	Mahi/dolphinfish	Ocean)
Chilean sea	Monkfish	Tuna,
bass/Patagonian	Snapper	albacore/white
toothfish	Spanish mackerel	Tuna, canned and
Grouper	Striped Bass	fresh/frozen
Hallibut	(Ocean)	Tuna, yellowfin
		Pacific Croaker

Choices to Avoid (Highest mercury levels)

King mackerel	Shark	Tilefish (Gulf of
Marlin	Swordfish	Mexico)

www.FDA.gov/fishadvice
www.EPA.gov/fishadvice

This advice refers to fish and shellfish collectively as "fish" / Advice revised October 2021

- **Excessive Caffeine:** Limit your intake to 200mg a day. That is roughly 1 ½, 8 ounce cups of coffee or one 12 ounce cup of coffee or three 5 ounce cups of black tea or two bars of plain chocolate. Soda may also contain caffeine, so always check the label.

Certain Meats & Fish

- Raw or undercooked meat, including beef, poultry and pork. This includes hot dogs and deli meat (like ham or bologna). If you eat hot dogs or deli meat, cook them until they are steaming hot or just avoid completely.
- Raw fish, especially shellfish. Don't eat sushi unless the fish is cooked. Also avoid ceviche, sashimi, and raw oysters
- Refrigerated pâtés, meat spreads or smoked seafood. If it is cooked into a dish like casserole it is OK. Pâtés that are shelf-stable (they can be stored unrefrigerated) are also OK

Certain Dairy Products

- Raw or lightly cooked eggs or foods made with them. This includes cake batter and raw cookie dough
- Soft-scrambled eggs
- Products made with uncooked eggs like certain caesar salad dressings, eggnog or certain sauces like hollandaise. Shelf-stable commercially made caesar salad dressing is OK to eat because it doesn't contain uncooked eggs
- Unpasteurized juice or milk or any foods made with them
- Unpasteurized soft cheeses, such as brie, feta, camembert, roquefort, queso blanco, queso fresco and Panela

Other

- Raw sprouts of any kind including mung beans, clover, radish and especially alfalfa sprouts
- Unwashed raw fruits or vegetables. Wash all your fruits and vegetables before eating them
- Store-made salads like chicken, egg or tuna salads
- Non-food items, like clay, starch, paraffin or coffee grounds. Tell your provider if you crave anything like this that's not food
- Avoid drinking unusual herbal teas. Peppermint and ginger tea are fine, avoid buying these on Amazon, opt for reputable health food stores or grocery stores.

Check your water quality using the EWG's tap water database https://www.ewg.org/tapwater/. The EWG regulates water quality at higher standards than the EPA. If there are contaminants in your water, use a carbon filter such as Brita, or in severe cases install a reverse osmosis machine.

Food Safety & Cooking Tips

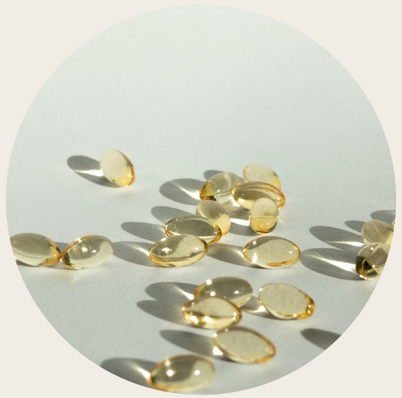
- Avoid cooking with aluminum. Studies show that aluminum foil, cookware, and utensils can increase aluminum content in food. Use parchment paper or lidded cookware like casseroles or Dutch ovens instead.
- Avoid reheating food in plastic containers. BPA, found in many plastics, is a harmful chemical. Use glass containers for reheating and storing food.
- Wash hands with warm soapy water before cooking and after using the restroom, handling pets, changing diapers, or using your phone.
- Keep counters, cutting boards, utensils, and cooking areas clean.
- Use diluted bleach to sanitize surfaces; follow bottle instructions carefully.
- Keep hot foods hot and cold foods cold until serving.
- Store hot food in shallow containers to cool faster in the fridge.
- No need to let food cool before refrigerating—modern fridges can handle it.
- Keep your refrigerator at 32°F to 40°F (1.67°C to 4.4°C) and your freezer at 0°F (–18°C).

When in doubt, throw it out! It is not worth it if you or your baby get sick.

Prenatal Vitamins

Choosing a prenatal supplement can be confusing. There are so many options out there, yet so little information to help guide your decision-making. Read on to find out about some of my favorites.

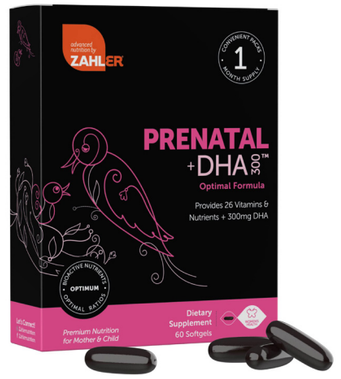
You may be surprised to know that prenatal supplements vary considerably. There are variations in the quality and quantity of nutrients and recommended dosage. It may give you peace of mind to read '100% RDA' next to a vitamin on the nutrition label, but studies now indicate that RDA values for certain vitamins could be well below what a pregnant woman needs to fully nourish her baby.



Do I really need to take a prenatal vitamin?

Pregnancy demands more from your body, requiring specific nutrients in higher amounts than standard multivitamins. While a healthy diet is essential, many women may still miss out on key nutrients due to undetected deficiencies and individual metabolic differences. This is especially true for folic acid, which some women may struggle to metabolize effectively. Therefore, I recommend that every pregnant woman—or those planning to become pregnant—take a prenatal supplement. Remember, a prenatal should complement, not replace, a balanced diet.

Good Choice: Zahler Prenatal DHA



PROS

- Exceeds most other prenatal vitamins on the market in terms of nutrients included, bioavailable/bioactive forms (these include Vit A and Vit K2 unlike many other brands)
- Contains DHA (300mg) and iron (27mg) which some brands do not
- High Vit D compared to other brands
- Only 2 capsules
- Contains choline (55mg) but relatively low
- Contains both K1 and K2 which is quite rare
- Kosher

CONS

- A bit more expensive compared to other brands
- Contains some synthetic folic acid

Best Budget-Friendly: Natures Made Prenatal + DHA

PROS

- Only 1 pill
- Third party-tested
- Gluten-free
- No artificial flavors
- Contains added DHA to support baby's brain development
- Contains iron (can be a con if you have constipation)

CONS

- A bit more expensive compared to other brands
- Contains some synthetic folic acid

Powered Prenatal for Morning Sickness: Needed

Morning Sickness & How to Manage It

Everyone experiences pregnancy differently.

In the first trimester, nausea and vomiting is common due to raised levels of HCG (the pregnancy hormone) referred to as “morning sickness,”- symptoms are typically experienced in the morning (but not always!).

Here are some tips to reduce the severity of nausea and vomiting:

- Eat small, frequent meals or snacks.
- Include some protein and fat with each snack, even in small amounts.
- Try salty, sour, dry, bland, or cold foods.
- Avoid fatty foods like butter, mayo, and cream.
- Keep a snack by your bed and move slowly in the morning; avoid hot showers early. Drink ginger tea or peppermint tea for relief; fresh ginger and mint can also help. Add ginger powder (0.5g/day) to smoothies or eat crystallized ginger.
- Smell a lemon or peppermint oil when feeling nauseous (don’t ingest the oil).
- Try acupressure on the P6 spot (3 fingers below the wrist).
- Sip water with electrolytes or have a little ginger ale.
- Choose protein powders with at least 15g protein per serving, low added sugar, no artificial sweeteners, or herbs. Ask for brand recommendations if needed.
- Opt for lean meats and avoid fried foods.
- Prenatal vitamins can help, but may worsen nausea. Take them at night and with food. If capsules are hard to tolerate, try chewable options.
- Vitamin B6 can help reduce nausea during pregnancy. A dose of 25mg, taken 3 times a day, has been shown to be effective.
- While you don’t need a prescription, it can be hard to find this exact dose over- the-counter, and taking multiple pills may be difficult when feeling nauseous, so a prescription might still be the best option.

In rare cases, morning sickness can develop into hyperemesis gravidarum, a condition characterized by severe nausea and vomiting that can lead to dehydration and other complications. If your nausea and vomiting are intense or don’t improve, be sure to let your Viva Eve provider know.

Second Trimester

What's going on in my body?

By 8-10 weeks, hCG levels drop as the placenta starts producing more progesterone and estrogen. These hormones are important for a healthy pregnancy and help prepare your body for breastfeeding.
Between weeks 13-20, your body becomes better at using insulin, but from weeks 20-39, it starts to resist insulin more. Insulin helps your cells take in sugar.

Human Placental Lactogen (hPL) levels rise during this time. This hormone, made by the placenta, ensures the fetus gets enough nutrients by helping the mother use less sugar and encouraging the release of fats and sugars for the baby. Higher hPL levels can sometimes be linked to gestational diabetes. For many women, the second trimester is truly a wonderful time during pregnancy! By now, nausea often takes a back seat, and your little one is still small enough that physical discomfort is minimal. But remember, your body is busy with lots of exciting changes every day!

As your baby grows, you'll notice your uterus and abdomen expanding gently. You might even experience Braxton Hicks contractions, those harmless practice cramps that help prepare your body for labor—nothing to worry about! It's also common for melanin levels to rise, leading to temporary brown patches on your skin, which will fade after delivery. And if you're experiencing those annoying leg cramps, especially at night, check out my FAQs for tips to help ease them.

Enjoy this lovely phase of your journey!

Macro-Nutrients (Carbs, Protein, & Fat)

Carbohydrates

Carbohydrates are chains of sugar that your body breaks down into smaller sugars, raising your blood sugar levels. They are the main energy source for your growing baby, making up about 70% of fetal energy needs. You can find carbs in many foods, both healthy and less healthy. The best sources include grains, root vegetables, fruits, legumes, and some dairy products. Besides fueling your baby, carbs also help keep your energy up and aid digestion.

Monitoring your diet is important. Eating too many refined carbohydrates (like juice, soda, and white flour products) can contribute to excessive weight gain and blood sugar issues during pregnancy. This may lead to larger babies and increase the likelihood of cesarean sections. It can also impact your child's metabolism, raising their risk of obesity and diabetes later in life.

I don't have issues with blood sugar control - do I still need to moderate carbs?

Yes! Many women think they only need to watch their carb intake if they have a condition like gestational diabetes (GDM). However, research shows that even slight increases in blood sugar—below the GDM threshold—can raise the risk of congenital heart defects in the fetus. A high-carb intake is also linked to a higher risk of preeclampsia (high blood pressure during pregnancy). I recommend a moderately low-carb diet during pregnancy, which doesn't mean zero carbs!

Fast Fact: Carbs are the only macro-nutrients that significantly raises your blood sugar level.

How many carbs should I eat?

This is a debated topic! Traditional prenatal guidelines suggest that carbohydrates should make up 45-65% of your daily calories, which is about 250-420g (or 9-11 servings) for women consuming 2,200-2,600 calories a day.

They also recommend not going below 175g of carbs daily. However, recent research supports a lower carbohydrate intake of about 90-150g per day, focusing on low glycemic index (GI) foods, which has a smaller impact on blood sugar. This approach aligns more closely with traditional diets.

Avoid	Moderate	Unlimited
White bread Pastries Bagels Muffins Cookies White pasta Sweets & candy Soda & juices Instant foods & meals (Instant oatmeal, instant potato mash, and rice)	Breakfast cereals Starchy vegetables (Sweet potatoes, squash, etc) Whole wheat, whole grain bread, & pasta) fruit	Non starchy vegetables (salad greens, tomatoes, green beans, asparagus, etc) Greek yogurt and Whole fat dairy Nuts & seeds Legumes (chickpeas, red kidney beans, lentils, split peas) Red berries (Strawberries, blueberries, raspberries, blackberries)

It's important to note that many foods contain a combination of carbs, fat, and protein. The above list contains those foods that primarily contain carbs. If you are still struggling with nausea it's normal and OK to eat more carbs during this phase.

Protein

Proteins are made up of amino acids which are the building blocks of all cells in our body. Lots of new cells are being created when you grow a baby, so it makes sense that protein requirements go up! There are 20 amino acids which have different functions. Some protein foods contain a mix of all these amino acids, they are known as ‘complete proteins’, others only contain a few, known as ‘incomplete proteins.’

Complete Proteins: Foods of animal origin (meat, fish, eggs, and dairy products)

Incomplete Proteins: Beans/legumes, nuts, and seeds.

Demands for the amino acids glycine become particularly high during pregnancy, as it is involved in the formation of fetal DNA, internal organs, connective tissue, bones, blood vessels and joints. Rich sources of glycine include bone broth and slow cooked cuts of meat such chuck stead (there is less glycine in muscle meats and very small amounts in plant proteins).

Fast Fact: About 925 g of protein accumulates during pregnancy in new tissue - skeletal muscle, connective tissue, peptide hormones, red blood cells, etc...

How much protein should I eat?

Conventional guidelines suggest 0.88g/kg or about 60g of protein per day for a 150 llb woman, however this recommendation is believed to be outdated. More recent advances indicate 80g of protein is required in the first half of pregnancy (weeks 1-20), 100g per day in the second half. If you are very physically active, you may need more.

Main Sources of Protein:

- **Beef, lamb, pork, bison, venison** (pasture-raised): 5 oz = 38g protein
- **Lean poultry** (chicken, turkey, duck, pasture-raised): 5-6 oz = 35g protein
- **Fish & seafood** (wild-caught): 5-6 oz = 35g protein
- **Sausage & bacon** (pasture-raised)
- **Organ meats** (liver, heart, kidney, tongue)
- **Bone broth** or powdered gelatin/collagen
- **Eggs** (pasture-raised): 1 egg = 6g protein
- **Cheese** (grass-fed/pasture-raised)
- **Yogurt** (Greek, e.g., FAGE, Oikos PRO, Siggi’s)
- **Nuts** (almonds, pecans, peanuts, walnuts, hazelnuts, pumpkin seeds, sunflower seeds, cashew)
- **Nut butter**, such as peanut butter or almond butter, 1 tbsp = 4g
- **Beans, peas, lentils and other legumes,** ½ cup = 20g
- **Seitan,** a great addition to a vegetarian or meat-eating diet, ⅓ cup = 21g

Fat

I often get asked by pregnant women if they should be limiting their fat intake to slow weight gain. My answer is always no! Demand for fat soluble vitamins such as choline, and Vitamin A and other nutrients found in high-fat foods goes up during pregnancy, plus your growing baby's brain is made up of 60% fat! When it comes to fat, quality and quantity matter.

Omega 6 vs. Omega 3

Both omega 6 and 3 are 'essential' fats meaning that our body can't produce them so we need to get them from our diet. Both are needed for brain development and function during pregnancy among many other uses, however we need them in the right ratio. Ideally 1:1 omega 6: and 1:4 for omega 3.

The richest source of omega 6 fatty acids is from vegetable oils, such as soybean oil, corn oil, cottonseed oil and safflower oil, commercial salad dressing and fried foods. The western diet tends to have a high proportion of omega 6 which can be pro inflammatory vs omega 3 which have anti inflammatory action. Healthier cooking oils include olive oil, lard, butter, and coconut oil.

The Importance of DHA

One type of omega 3 that is particularly important during pregnancy is DHA, this plays a vital role in vision and brain development and offers mood and nerve support for mothers. Studies also suggest an association between decreased maternal omega 3 intake during pregnancy and the occurrence of postpartum depression (De Vriese et al., 2003, Golding et al., 2009).

DHA Food Sources Include: fatty fish and seafood (mackerel, salmon, herring, ideally wild caught), grass-fed meat, pasture-raised eggs.

Daily DHA recommendation is 300mg, which can be obtained in the diet and/or supplemented. As reference, 1 serving of salmon has 1825mg EPA/ DHA per serving.

How much fat should I eat?

There aren't strict guidelines, but the American Congress of Obstetricians and Gynecologists (ACOG) recommends that pregnant women eat omega-3-rich foods, including at least two servings (about 8-12 ounces) of low-mercury fish or shellfish each week.

Avoid trans fats, which can be found in some pastries, muffins, cookies, and processed foods. While they've mostly been removed from the U.S. food supply, they can still appear in some products.

Fast Fact: Metabolic studies indicate that the fetus accumulates an average of 67 mg of docosahexaenoic acid (DHA) per day during the last trimester of pregnancy (Innis, 2003)

Healthy Fat Sources:

- **Animal fat:** lard (pork fat), tallow (beef fat), duck fat, chicken skin (from pasture raised/ grass-fed animals)
- **Dairy Fat:** butter, ghee, heavy cream, sour cream, cream cheese
- **Plant fats:** extra virgin olive oil (choose dark bottles), coconuts, avocados, nuts, seeds

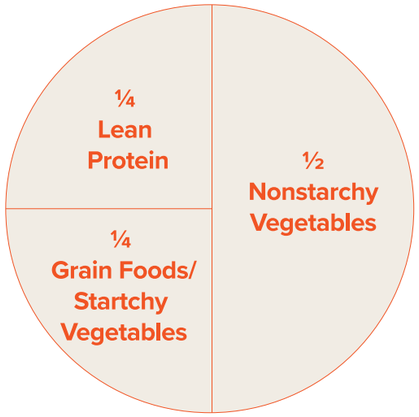
Macro-Nutrient Balancing

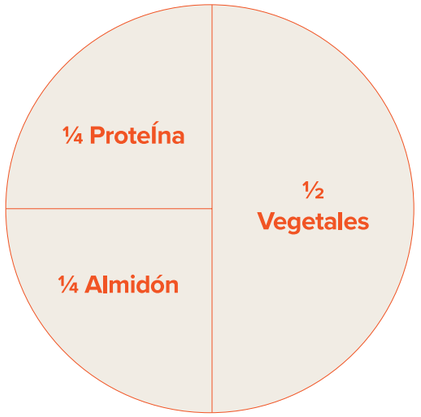
The Healthy Plate Method

Do you experience food cravings, strong hunger, or low energy? This might mean your meals and snacks are not balanced. For example, eating an apple alone can cause a quick spike in your blood sugar. However, pairing it with nuts or nut butter helps keep your blood sugar more stable.

Bottom Line:

Eat carbs, but try to carefully balance them with fats, and protein to minimize blood sugar spikes and choose the most nutrient-dense carbs such as those found in whole foods.





Weight Gain Guidelines

The latest weight gain guidelines by the Institute of Medicine are based on a women's BMI before pregnancy. The amount of weight gained depends on what category the pre-pregnancy BMI lands in:

Pre-pregnancy BMI	Total weight gain at term	Rate of weight gain in the 2nd and 3rd Trimester; Mean (range)
Underweight (< 18.4 kg/m²)	12.5 - 18 kg 28 - 40 lbs	0.51 (0.44 - 0.58) kg/week 1 (1 - 1.3) lbs/week
Normal weight (18.5 - 24.9 kg/m²)	11.4 - 16 kg 25 - 35 lbs	0.42 (0.35 - 0.50) kg/week 1 (0.8 - 1) lbs/week
Overweight (25.0 - 29.9kg/m²)	7 - 11 kg 15 - 25 lbs	0.51 (0.44 - 0.58) kg/week 1 (1 - 1.3) lbs/week
Obesity (≥ 30.0 kg/m²)	5 - 9 kg 11 - 20 lbs	0.22 (0.17 - 0.27) kg/week 0.5 (0.4 - 0.6) lbs/week

Data from Institute of Medicine. Weight gain during pregnancy: reexamining the guidelines. Washington, DC: Insitute of Medicine; 2009

For multiples, maternal metabolic rate is approx. 10% higher than singletons. Weight gain ranges differ:

- **Normal Weight** - 37 - 54lbs
- **Overweight** - 31 - 50lbs
- **Obese** - 25 - 42 lbs

There are no set guidelines for underweight BMI weight gain with twins.

Where does the extra weight go?

- Baby - 6 to 8 pounds
- Placenta - 2 to 3 pounds
- Amniotic fluid - 2 to 3 pounds
- Breast tissue - 0 to 3 pounds
- Blood supply - 3 to 4 pounds
- Uterus increase, 2-5 pounds
- Fat stores for delivery and breastfeeding - remainder of weight

Total: 15 - 35 pounds (6 - 16kg)

Changing Iron Needs Duration & Dose

After week 12 of gestation (the beginning of the second trimester), iron requirements begin to increase. Iron administration at a dose of 60 to 120 mg/day (preferably in divided doses) is indicated if there is laboratory evidence of an already established anemia at any stage of pregnancy. The dose should be decreased to 30 mg/day when the hemoglobin concentration is within the normal range as per lab work. I recommend iron glycinate which is generally well tolerated and has a lower risk of constipation.

The Oral Glucose Tolerance Test (OGTT)

The OGTT is a common test for pregnant women in the U.S. It checks how well the body processes sugar. Pregnancy can make it harder for the body to use sugar from food. If blood sugar levels are high during the test, it may indicate that sugar isn't being absorbed properly, which could suggest diabetes or gestational diabetes. Screening usually occurs between weeks 24 and 28 of pregnancy for women without known diabetes, with some guidelines recommending screening specifically at week 24.

What types of OGTT are there?

There are two types of glucose tolerance tests: a short version called the 1 hr glucose challenge test, and a full 3 hr glucose tolerance test. The short version is easier to do and serves as a preliminary test to determine someone's risk of diabetes or gestational diabetes (GDM).

During the glucose challenge test you will consume a glass of concentrated glucose solution (50 g of glucose dissolved in 250 to 300 ml of water). After one hour has passed, a blood sample is taken to determine the blood sugar level.

What causes gestational diabetes?

Risk factors for gestational diabetes include:

- Being overweight or obese
- Lack of physical activity
- Prediabetes or a history of gestational diabetes
- Polycystic ovary syndrome (PCOS)
- Family history of diabetes
- Having previously delivered a baby over 9 pounds
- Belonging to certain racial or ethnic groups (e.g., Black, Hispanic, American Indian, Asian American)

Risk Factors (Mayo Clinic)

Potential Complications of Gestational Diabetes

Gestational diabetes that's not carefully managed can lead to high blood sugar levels. High blood sugar can cause problems for you and your baby, including increased birth weight and higher likelihood of needing a surgery to deliver (C-section). High blood sugar during pregnancy can also increase the risk that your child can develop type 2 diabetes later in life.

During the glucose challenge test you will consume a glass of concentrated glucose solution (50 g of glucose dissolved in 250 to 300 ml of water). After one hour has passed, a blood sample is taken to determine the blood sugar level.

Diet & Gestational Diabetes

If you're diagnosed with gestational diabetes (GDM), don't worry! Many women manage their blood sugar effectively through diet and exercise without needing medication. Carbohydrates have the biggest impact on blood sugar, so we'll focus on the types, amounts, and timing of your meals. Including protein and healthy fats can help stabilize your levels. You'll be referred to the team at Mt. Sinai for a personalized plan, and I'm here to answer your questions and provide support along the way.

Third Trimester

Whats going on in my body?

As your baby grows, you might find it harder to get comfortable at night, and their movements will be more noticeable. Braxton-Hicks contractions could start; don't worry, they're just practice contractions that may intensify as you near delivery. Expect more frequent checkups with your provider—likely every two weeks from week 32 and weekly from week 36.

You're in the home stretch! This trimester can be challenging with added weight and delivery uncertainties. Back and hip pain, constipation, and swelling are common. Consider visiting a physical therapist who specializes in prenatal care for some relief. You've got this!

Energy Requirements (Quick Reminder)

- **Underweight pre-pregnancy:** +300 kcals per day
- **Normal weight pre-pregnancy:**+500 kcals per day
- **Overweight/ Obese pre-pregnancy:** + 350 kcals per day

Continue to eat a variety of real, whole foods every day. Avoid packaged, overly processed and sugary foods. Increase fluid intake to maintain normal blood pressure, pro tip: you can add powdered magnesium to your water or take an epsom salt bath in the evening to help relieve leg cramping. You'll want to increase your protein intake throughout this trimester to support your growing baby and keep your blood sugar levels stable.

Postpartum

The Importance of Postpartum Nutrition

Much attention is placed on the importance of a healthy diet during pregnancy, but eating well after delivery is just as crucial—if not more so. Your body is still working hard to heal, adjust hormonally, and produce quality breast milk. Even if breastfeeding isn't in your plans, following some basic nutrition principles can make the early days of motherhood a bit smoother.

When should I start thinking about my postpartum diet?

The sooner the better. Try to find some time to think things over during your third trimester.

Here are some questions to ask yourself:

- What are some of my favorite meals & snacks?
- Do they nourish my body or are they just 'filler' foods?
- Who is going to help me prepare food before and after delivery?
- Can I spare some time to cook and then batch freeze some meals before baby arrives? If so, when will I do this? Mark your calendar!

Thankfully, most of the dietary restrictions from pregnancy are eased for breastfeeding moms. However, nutritional needs increase markedly during the postpartum period, especially if you are breastfeeding.

- Increase fluids (3/4 – 1 fl oz per lb. body weight)
- Increase high quality protein to aid tissue repair and healing
- Additional 450-500 kcal compared to pre-pregnancy, approx 2,300-2,500 kcals per day (CDC)
- Choose foods that contain nutrients that transfer into breastmilk (see below)
- Continue with prenatal vitamin for at least 1 year

Foods & Herbs for Breastfeeding

Boosting Milk Quality

Not all women will have the same quality breast milk, breast milk is influenced by two things: your genes and your diet. You can't change your genes but you can improve your diet!

Some micro-nutrients vary in human milk depending on maternal diet and stores. In particular: Vitamins A, B1, B2, B3, B6, B12, C, D, iodine, selenium, omega fatty acids so it is important to optimize your intake of these nutrients. Not all women will have the same quality breast milk, breast milk is influenced by two things: your genes and your diet. You can't change your genes but you can improve your diet!

DHA

- Essential component in tissue membranes of the brain and retina.
- Transfers to breastmilk and often depleted from pregnancy.
- Plant sources, such as nuts and seeds, are rich in ALA omega 3's which can be converted into EPA and then DHA but at low levels. Fish, seaweed, and algae are preferable as they have higher levels of direct EPA and DHA.
- Supplementation: 400mg DHA per day if not consuming any food sources.

Foods To Include:

Nutrient	Rich Vegetarian Food Sources	Rich Animal Food Sources
Vitamin B1 (Thiamin)	Whole wheat bread Cauliflower Flax seeds Potato Navy beans Brown rice Brewer's yeast	Milk Eggs Pork Salmon Mussels
Vitamin B2 (Riboflavin)	Spinach Brewer's yeast	Dairy milk Yogurt Cheese Eggs Beef Pork Organ meats Poultry
Vitamin B1 (Thiamin)	Fortified cereals Fortified nutritional yeast Nori Shiitake mushrooms Supplement if vegan	Eggs Milk Fish & other shellfish Liver Red meat
Vitamin C	Carrots Broccoli Cantaloupe & squash	N/A
Vitamin D	Sunshine! Plant milks & orange juice fortified with vitamin D	Dairy products Fish & other seafood Eggs
Vitamin E	Wheat germ oil Sunflower seeds Peanut butter Almonds Pumpkin Beet greens	N/A
Vitamin K	Green leafy vegetables Natto (fermented tofu)	Eggs
Selenium	Brazil nuts Lentils Beans	Beef Poultry
Iodine	Seaweed Salt Milk Spirulina powder	Eggs Dairy Milk
Choline	Shiitake mushrooms	Eggs Beef & beef liver Fish Poultry
DHA	Algae Flax seeds Chia seeds Walnuts Olive oil	Fish & other seafood

Boosting Milk Quantity

There are many factors at play when it comes to increasing breastmilk supply. Early skin to skin contact with the baby and starting to breastfeed as soon as possible can help to stimulate increased oxytocin and prolactin, both help to stimulate milk production. There are no magic foods that increase milk production quickly.

- Drink a ton of fluids, preferably water. Bone broth is also a great addition (at least 100 fl oz per day).
- Increase frequency of feeds and/or pump between feedings Additional 450-500 kcals high quality kcals per day compared to pre pregnancy.
- Try including galactagogues in your diet - Chamomile, fennel, nettle, fenugreek, goat's rue, blessed thistle, milky oats, brewer's yeast. There are food products and teas on the market that incorporate these ingredients. Evidence is largely anecdotal.
- Speak to a lactation consultant (IBCLC) - they can help you with positioning of the baby and proper latching which can increase let down reflex.
- Talk to your Viva Eve provider if your supply is severely impaired - Metoclopramide is the most commonly prescribed medication to increase supply. Side effects include: gastrointestinal, anxiety, sedation, and rare dystonic reactions (muscle twitching), 1–3 weeks is common.

Foods To Avoid

No need to completely eliminate foods unless baby has an obvious reaction.

- Some food protein, such as cow's milk and peanut protein, do pass into breast milk. If the baby is having a reaction or overly fussy, try eliminating these one by one and see if it makes a difference.
- Consider moderating intake or eliminating if there is history of food allergy in your family.
- Caffeine – less than 300 milligrams (around 2 cups standard coffee per day).
- Alcohol - wait a few hours before breastfeeding (you can pump and then test with alcohol test strips).
- Continue to limit intake of high mercury fish and seafood.
- Limit consumption: Refined/processed carbohydrates: white flour, white bread, white rice, pastries, sodas, snacks, pasta, sweets, breakfast cereals and added sugars.

The Five Pilars of Postpartum Recovery

#1 Water, water, water - Aim to drink 1 fl oz per lb of body weight

#2 Listen to hunger cues, remember to eat! Every 2-3 hours, little, and often

#3 No crash dieting. Increase daily intake by 500 kcals while breastfeeding and don't be tempted to cut carbs

#4 Find support - Reliable and preferably supplying food!

#5 Avoid strenuous exercise until you have medical clearance - Take your time to heal and recuperate, at least 6-8 weeks or more

FAQ's

Fish – yes or no? It's complicated.

A lot of studies around the consumption of fish during pregnancy have been conflicting. This is because fish contains omega 3 fatty acids which are beneficial during pregnancy and mercury which is associated with deficits in memory, learning, and behavior in children. The benefits of omega 3's include, improved fetal brain development, improved vision in preterm infants, as well as better cardiovascular health later in life. The component in omega 3's that is especially beneficial during pregnancy is Docosahexaenoic acid (DHA). In addition to being found in fish, you can also get DHA from eggs. Grass-fed beef, flaxseed and walnuts contains alpha-linolenic acid (ALA) which is converted into DHA.

Pregnant women would consume those fish that are low in mercury and high in omega-3 fatty acids such as salmon, sardines, and anchovies. High mercury fish such as shark, swordfish, tilefish, and king mackerel should be avoided.

I'm a vegetarian/ vegan do I need to do anything special?

There are several types of vegetarian diets: ovolactovegetarian (includes dairy and eggs), ovo- vegetarian (includes eggs), lactovegetarian (includes dairy), and vegan (excludes all animal products).

To ensure adequate protein, aim for daily servings of beans, peas, soy, nuts, nut butter, and dairy or eggs. Watch for potential deficiencies in iron, calcium, zinc, and vitamin B12, and make sure to take a prenatal vitamin daily. You may need lab testing for these nutrients.

Will my nutritional care differ if I am overweight?

Starting pregnancy with extra weight can slightly increase the chances of some complications, like gestational diabetes and high blood pressure. But don't worry—there are many ways to reduce these risks through healthy eating and staying active!

Weight gain recommendations will depend on your pre-pregnancy BMI, so it's a good idea to check in with the Registered Dietitian for personalized advice. Early screening for glucose intolerance may take place, with a follow-up at 24–28 weeks if the first test is clear.

What if I have had bariatric surgery before I got pregnant?

Pregnancy after bariatric surgery requires thoughtful attention to nutrition, as there can be deficiencies in essential vitamins and minerals like vitamin B12, folate, and iron. This is particularly important following surgeries such as Roux-en-Y gastric bypass, although deficiencies can still occur after gastric banding. It's essential to monitor for iron deficiency anemia, which can affect 6% to 50% of patients after Roux-en-Y gastric bypass. To support your health and your baby's development, it's a great idea to consult your Viva Eve provider for nutritional screening and any necessary lab tests. They are here to help you every step of the way!

How can I manage heartburn?

Heartburn is common during pregnancy and can be uncomfortable. This occurs due to rising progesterone levels, which relax the muscle between your stomach and esophagus, along with added pressure from your growing baby. Here are some tips to ease heartburn symptoms:

- **Use Calcium-Containing Antacids:** Over-the-counter antacids with calcium can help neutralize stomach acid and provide relief.
- **Avoid Trigger Foods:** Steer clear of spicy, greasy, fatty foods, caffeine, mint, citrus, and chocolate, as these can worsen heartburn.
- **Eat Small, Frequent Meals:** Opt for smaller meals throughout the day to prevent overfilling your stomach and reduce pressure on the esophagus.
- **Limit Drinking During Meals:** Avoid large amounts of liquid while eating; sip water between meals instead.
- **Stay Upright After Eating:** Remain upright for 1-2 hours after meals to keep stomach acid down. A gentle walk or sitting up can aid digestion.

How can I manage constipation?

Constipation is a frequent issue during pregnancy, often caused by slower digestion due to hormones. It can also be a result of increased iron intake from prenatal vitamins. If you're experiencing this, know that it's a common challenge, and there are ways to find relief.

- Increase dietary fiber (soluble and insoluble forms, ask your RD for examples).
- Increase Fluids (at least 100 oz per day)
- Moderate exercise (at least 30 mins per day eg. Brisk walking/ swimming)

If not improving...

Laxatives

Five types - (bulk forming, stool softeners, lubricants, osmotic and stimulant) - talk to your Viva Eve provider about what is best for you, examples include Senna, Colace and milk of magnesia.

Can I use artificial sweeteners?

This is another controversial topic. While many believe artificial sweeteners prevent blood sugar spikes, recent findings suggest that those who consume the most may actually face blood sugar issues. These sweeteners can affect gut microbes, which play a role in blood sugar control. Splenda, in particular, has been shown to reduce beneficial bacteria like bifidobacteria and lactobacilli.

Avoid	Generally Considered Safe
Aspartame	Stevia
Sucralose	Xylitol
Saccharin	Erythritol
Acesulfame Potassium	
Neotame	

Do I need to reduce my salt intake during pregnancy?

During pregnancy, aim for about 2,300 mg of sodium daily. Sodium is essential for fluid balance, but too much can lead to swelling and high blood pressure.

Tips:

Choose whole foods: Focus on fresh fruits, vegetables, and whole grains.

Limit processed foods: Reduce intake of packaged foods, which often contain high salt. Stay Hydrated: Drink plenty of water to help manage sodium levels.

Consult your Viva Eve provider for personalized advice, especially if you have conditions like gestational hypertension.

What is preeclampsia and is there anything I can do to reduce the risk?

Preeclampsia is a serious condition characterized by elevated blood pressure usually occurring in the second half of pregnancy (week 20 onwards).
We don't know the exact cause of pre eclampsia, but there are some risk factors, including:

- Having diabetes, high blood pressure or kidney disease before you were pregnant.
- Having an autoimmune condition, such as lupus or antiphospholipid syndrome.
- Having high blood pressure or pre-eclampsia in a previous pregnancy

If you're at risk for preeclampsia, your Viva Eve provider may want you to take low-dose aspirin to help prevent it.

In terms of diet, here are some other tips to reduce your risk:

- Increase your intake of omega 3s, reduce omega 6 and eliminate trans fats.
- Make sure you get enough protein (especially glycine). Women with pre eclampsia have been found to excrete less glycine in their urine, suggesting increased demands for this amino acid which is involved in producing elastin in blood vessels.
- Increase choline in your diet. This nutrient plays a role in placenta function and was found to prevent pre eclampsia and placental inflammation in rodent studies. If your prenatal doesn't contain any choline increase consumption of low mercury fish, whole eggs, shiitake mushrooms.
- Fresh veggies and fruits, avocados, oranges and tomatoes are particularly high in potassium important for blood pressure control. Increase Vitamin D. Deficiency has been associated with elevated risk of pre eclampsia, if you can ask to get your levels checked at baseline and then again during your pregnancy, at a minimum levels should be 30ng/ml, ideally 50ng/ml or more. I will be happy to give you a personalized recommendation for dosing and brands.

Nurturing yourself and your baby during pregnancy is essential. Focus on balanced nutrition to support your well-being and your little one's growth.

If you have any questions or need support, contact our Team and we'll put you in touch with your Nutrition Expert.

Contact:

Phone: (212) 988-2111
Email: patientservice@vivaeve.com
Text: https://bit.ly/3BG6rkA

References & Resources

Recommended Podcasts:

- "Birthful" by Adriana Lozada
- "Beyond The Bump" by Sophie Pearce & Jayde Couldwell
- "The Informed Pregnancy Podcast" by Dr. Elliot Berlin
- "The Hypnobirthing Podcast" by the Nature Nest

Recommended Reading:

- "What To Expect When You're Expecting" by Heidi Murkoff
- "Cribsheet" by Emily Oster
- "Expecting Better" by Emily Oster
- "Why Did No One Tell Me This?" by Natalia Hailes
- "Real Food For Pregnancy" by Lily Nichols
- "The Whole 9 Months: A Week By-Week Pregnancy Nutrition Guide with Recipes for a Healthy Start" by D.A. White

Breastfeeding Web Resources:

- International Breastfeeding Center - https://ibconline.ca/
- La Leche League - https://llli.org/
- Kelly Mom - https://kellymom.com/

Pregnancy Association Guidelines:

- **Pregnancy: Nutrition Cleveland Clinic:** https://my.clevelandclinic.org/health/articles/12593-pregnancy-nutrition
- **American College of Obstetricians & Gynecologists: Nutrition During Pregnancy** https://www.acog.org/patient-resources/faqs/pregnancy/nutrition-during-pregnancy
- **Nutrition Recommendations in Pregnancy and Lactation** https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5104202/
- **American Diabetes Association – Gestational Diabetes** https://www.diabetes.org/diabetes/gestational-diabetes