

Shake it Up, Baby? Maybe Not. Considering Nutritional Shakes in Pregnancy

“I just found out I’m pregnant. Can I keep drinking my energy shake in the mornings?”
“My doctor gave me the go-ahead to work out. Okay to have a protein shake after the gym?”
“My immunity-boosting drink is a life-saver. Can I keep using it while I’m pregnant?”

These are common questions during pregnancy, and ones that we hear a lot at MotherToBaby. Perhaps you’ve wondered the same thing yourself. As teratogen information specialists, we provide facts about how a woman’s exposure in pregnancy might affect her developing baby. So, when we get questions about shakes, powders and other nutritional supplements in pregnancy, we look to the research. And that research, or lack of it, leads us to caution women against drinking that favorite nutritional shake while they’re pregnant. Here’s why:

Lack of FDA approval

Nutritional shakes and powders fall under the category of “supplements.” Supplements aren’t approved by the U.S. Food and Drug Administration (FDA) in the way that food and medicines are. The FDA does set out safety requirements for supplements, but the manufacturers are responsible for ensuring that their own products meet those requirements (kind of like a home builder inspecting their own house.) This means that shake makers and other manufacturers can put their products on the market without proving their safety, or even showing that the products actually do what they claim they will. Once a supplement is on the market, the FDA relies mostly on consumers’ reports to alert them of side effects or other problems that could lead to warnings or recalls.

This is not to say that all supplement makers are unscrupulous or careless. Many manufacturers go above and beyond the FDA requirements for safety, and stand behind the purity and efficacy of their products. But the lack of oversight has allowed supplements to wind up on shelves despite being contaminated with bacteria, pesticides or heavy metals (such as lead), or having mislabeled ingredients or amounts of those ingredients. These inconsistencies can be dangerous, especially for people who take medications that might interact with unknown ingredients, or for pregnant women who need to avoid potentially harmful additives that can affect the baby.

Lack of studies in pregnancy

Nutritional shakes often contain vitamins, herbs, plant derivatives and other goodies intended to boost energy, strengthen immunity or have other positive health effects. But these additives are often listed on the label as “herbal blends” or “proprietary blends,” meaning that the individual ingredients are not revealed. And even if they are listed individually, some of those ingredients may have been studied in pregnancy, while others have not. The lack of studies means we don’t know if they might have harmful effects on a developing baby or otherwise increase risks in pregnancy.

For example, some ingredients may be “generally recognized as safe (GRAS)” when eaten in the amounts usually found in food, but they could increase the risk of miscarriage when used at high concentrations in pregnancy. The concentration of a plant-derived ingredient can vary from batch to batch, depending on the growing and harvesting conditions of the plant. So in the end, you can’t be sure what you and your developing baby are getting with that shake.

Nutritional needs in pregnancy

A varied, healthy diet along with a daily prenatal vitamin recommended by your healthcare provider should give you all the vitamins, minerals and other nutrients that you and your growing baby need during pregnancy. Adding the extra vitamins found in that shake to your diet might result in exceeding the daily recommended amounts for pregnancy. On the flip side, if you are using a nutritional shake as a meal substitute, you might be missing essential nutrients that you and your baby should be getting from food. Always talk to your healthcare provider about the best way to meet your specific nutritional needs during pregnancy.

So, what to do about that container of protein powder sitting in your pantry or those bottles of energy shake taking up space in the fridge? Our advice? Find a new home for them until after you’ve delivered and are no longer breastfeeding. After all, you want to give your pregnancy a “fair shake,” right?

References:

- Natural Products Database, adapted from The Review of Natural Products. Facts & Comparisons (database online]. St. Louis, MO: Wolters Kluwer Health Inc.; 2012.
- U.S. Food and Drug Administration. **FDA 101: Dietary Supplements.** <https://www.fda.gov/Food/DietarySupplements/UsingDietarySupplements>
- U.S. Food and Administration. **Daily Values for Infants, Children Less Than 4 Years of Age, and Pregnant and Lactating Women.** <https://www.fda.gov/food/dietary-supplements-guidance-documents-regulatory-information/dietary-supplement-labeling-guide-appendix-c-daily-values-infants-children-less-4-years-age-and>

Questions? Call 866.626.6847 | Text 855.999.3525 | Email or Chat at [MotherToBaby.org](https://www.MotherToBaby.org).

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If you are an athlete and/or have a physically active lifestyle, you may have wondered: ‘Should my exercise routine change during pregnancy and breastfeeding?’ As a former division 1 athlete and now teratogen information specialist, I sure have. You may have seen news reports about professional athletes who trained and competed at the highest level at least for some time during or shortly after their pregnancies. Serena Williams won the Australian Open while 8 weeks pregnant; Alysia Montano ran the 800 meter race at a national meet in her third trimester and Allyson Felix won a gold medal at the World Championship in track only 10 months postpartum, breaking the world record for number of gold medals won at world championships. At the same time, you may hear concerns that vigorous/strenuous physical activity can be harmful to a pregnancy. So, what is really recommended for pregnant women who have a very physically active lifestyle?

Intense Exercise and Pregnancy

Benefits of Exercise

In general, exercise is an essential element of a healthy lifestyle and is encouraged during pregnancy as a component of optimal health. Women who frequently engaged in high-intensity aerobic activity or who were physically active before pregnancy can continue these activities during and after pregnancy. Studies show many benefits: it reduces the risk of excessive weight gain, preterm birth, low birth weight, risk of C-section and developing diabetes and high blood pressure during pregnancy. Additionally, physical activity can also help with the aches and pains of pregnancy and reduce the risk of postpartum depression. Concerns that physical activity may cause miscarriage, preterm delivery or growth problems have not been proven for women with uncomplicated pregnancies.

While exercise during pregnancy is associated with minimal risks, some changes to your routine may be necessary because of normal body changes during pregnancy. Consult with your healthcare provider to determine if/how you need to adjust your exercise routine. This is even more important for women who have pre-existing health conditions.

Level and Duration of Activity

It's important to listen to your body during pregnancy. Every pregnancy and every pregnant woman is different. The body goes through many changes during pregnancy: blood volume increases, your heart pumps harder, heart rate increases and aerobic capacity (fitness level) decreases. Additionally, many women experience nausea and fatigue throughout their pregnancy making it difficult to maintain prior exercise levels, not to mention proper nutrition and hydration. Listen to your body and don't push it past its limits.

It's difficult to compare vigorous/strenuous exercise between individuals. Jogging 10 miles may seem like a piece of cake for a marathon runner but could be extremely difficult for an Olympic lifter. For this reason, 'vigorous' activity is most frequently defined as up to 85% of capacity. While maximum effort is difficult to measure, capacity is often described in terms of maternal heart rate.

Another way to check your intensity level is the "talk test." If you're breathing hard but can still have a conversation easily—but you can't sing—that's moderate intensity. An activity would be considered vigorous if you can only say a few words before pausing for a breath.

If you were in the habit of doing vigorous-intensity exercise or were physically active before your pregnancy, vigorous exercise appears to be ok for most healthy women. However, there is limited information on individuals who exceed the accepted 85% capacity and an upper level of 'safe' exercise intensity hasn't been established.

In general, it is recommended to exercise 30-60 minutes 3-4 times a week to up to daily.

What to Consider When Exercising

- Stick with what your body is used to. If you are used to long-distance running, pregnancy is not the time to turn into a power lifter and vice versa.

- Stay hydrated. Drink plenty of fluids before, during and after exercising.
- Avoid overheating. Even if you are used to exercising in 90-degree heat with 70% humidity, you may have to look for an alternative method such as air-conditioned gyms. Don't use steam rooms, hot tubs, and saunas.
- Avoid exercises that call for you to lie flat on your back in the second and third trimester of your pregnancy because this allows less blood flow to your womb.
- Don't engage in sports where you could fall or get injured, or sports where you might get hit by a fast ball.
- Reduce weight load. There is limited data on the effects of resistance training (e.g. weightlifting) on pregnancy. There is a concern that holding your breath during heavy lifts can possibly result in baby's heart rate slowing down. Because of this, you may have to reduce the resistance load.
- Allow enough time for your body to recover after each training session.
- Make sure you have enough caloric intake. If you regularly participate in vigorous-intensity exercise, you will likely have to adjust your caloric intake to allow for appropriate weight gain for your pregnancy.
- Continue to fuel your body. Prolonged high-intensity exercise can result in low blood sugar. Make sure you fuel your body if you plan on exercising over 45 minutes.
- Check with your healthcare provider before continuing any supplements such as pre-workout protein shakes. Also, see our [MotherToBaby blog](#) on this topic.
- Stop exercising if you feel dizzy, have a headache, develop chest pain, have calf pain or swelling, have muscle cramps, or you experience vaginal bleeding, leakage of fluid, contractions or shortness of breath before exertion. Call your healthcare provider with any concerns.

Postpartum and Breastfeeding

In general, exercise can be resumed gradually after delivery as soon as it is medically safe – consult with your healthcare provider on when they may be. This may depend on mode of delivery (c-section vs. vaginal birth) and any additional health problems or complications. When exercise can be resumed varies among women, with some being able to start exercising within days after delivery.

Regular exercise has not been shown to affect breast milk production or quality and hasn't been shown to affect baby's growth either. It is extremely important to remain hydrated during breastfeeding, especially when regularly exercising. All women who are breastfeeding should also focus on the correct amount of caloric intake which may vary depending on level of activity.

Bottom line is, we are all different athletes and will all have different needs during pregnancy and the postpartum period. There is no 'one-size-fits-all' recipe for vigorous exercising during pregnancy. The best things you can do are to consult with your healthcare provider frequently and listen to your body. For more information, see our MotherToBaby Fact Sheet on [exercising](#). You can also find some information on which foods/drinks to limit/avoid, the appropriate amount of weight to gain, and the recommended amount of exercise [here](#).

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