What's the Scoop on Protein Supplements during Pregnancy and Breastfeeding?

Do you enjoy protein shakes, adding protein powder to your smoothies, or using pre-workout mixes with protein? My friend, Emily, is currently in her first trimester and loves getting extra protein. Before she got pregnant, she started power lifting, which also came with extra protein supplementation. Once she got pregnant, Emily asked me, like so many others in her position, if she could continue her protein supplementation during pregnancy and when breastfeeding.

With any pregnancy, there is a 3% chance of developing a birth defect. So I looked into protein supplementation to see if it changes the risk for birth defects, side effects during breastfeeding, or any other issues. That way, Emily could make a well-informed decision for her health and the health of her family.

Many of these protein products contain types of protein that are also found in everyday foods and even in breast milk. Everyone needs a certain amount of protein every day as a part of a balanced diet. However, there are certain reasons why someone might have a specific daily protein intake goal. Like Emily, many people are interested in having more protein to build muscle. There are other health conditions, like phenylketonuria (PKU), that affect how much protein you should get in your diet. Ultimately, it is very important for you to review your personal daily protein intake goals with your healthcare team to make sure your health is supported.

Not every protein supplement has been well studied, so information on using them during pregnancy or breastfeeding is limited. In addition, many protein powders and drinks also include other ingredients, such as added vitamins or herbal products. For more information on herbal products, check out our fact sheet on here: https://mothertobaby.org/fact-sheets/herbal-products-pregnancy/.

Supplements are regulated differently than prescription drugs. Even though the United States Food and Drug Administration (FDA) regulates supplements, the FDA doesn't check every product for safety or effectiveness before it goes on the shelf. This means some protein powders might contain some unknown or unlisted ingredients.

So before adding that extra scoop of protein powder, take some time to figure out if protein supplementation is right for you.

How Much Protein Do You Need?

How much protein you need depends on different factors, such as age, activity level, and health. Some proteins have a daily recommended dietary allowance (RDA). The RDA depends on a person's weight. You, most likely, get some amount of protein from your diet naturally. It's important to take your diet into consideration when trying to figure out how much protein you should be having. Because there are so many things to consider, it's recommended to talk with your healthcare team to make sure you are meeting your nutritional needs. Getting the right amount of protein for you is not expected to increase the risk for issues during pregnancy or side effects during breastfeeding.

What are the typical amino acids in protein supplements?

Most protein powders contain many amino acids. Amino acids are the building blocks of protein. The list below may not include everything that might be found in your protein powder. Since not every amino acid has an RDA, here is a list of the known amino acids with an RDA. It's always a good idea to double check with your healthcare team on what your specific protein intake goals are.

- **Cysteine & Methionine***
  - RDA during pregnancy: 25 mg/kg
  - RDA during breastfeeding: 26 mg/kg
- **Isoleucine**
  - RDA during pregnancy: 25 mg/kg
  - RDA during breastfeeding: 30 mg/kg
- **Leucine**
  - RDA during pregnancy: 56 mg/kg
  - RDA during breastfeeding: 62 mg/kg
- **Lysine**
  - RDA for adults: 12 mg/kg
- **Threonine**
  - RDA during pregnancy: 26 mg/kg
  - RDA during breastfeeding: 30 mg/kg
- **Tryptophan**
  - RDA for adults: 3.5 mg/kg
- **Valine**
  - RDA for pregnancy: 31 mg/kg

- RDA for breastfeeding: 35 mg/kg

*Note: The RDA for methionine and cysteine is combined.

What About Other Ingredients?

Often, protein powders can have other ingredients in addition to the protein. Again, check the label on your specific products, as they can vary.

- **Caffeine**: For more information on caffeine, check out our fact sheet: https://mothertobaby.org/fact-sheets/caffeine-pregnancy/
- **Collagen:** There aren't any studies that look at the use of collagen as a supplement during human pregnancy or breastfeeding.
- **Creatine**: Creatine is naturally found in the body and in breastmilk. There aren't any studies that look at the use of creatine as a supplement during human pregnancy or breastfeeding.

So What Now?

Emily realized that since there is not a lot of information on protein supplementation during pregnancy and breastfeeding. The best next step for her was to chat with her healthcare team about what would best support her health and pregnancy. Some providers on her healthcare team include her primary care provider, her nurse-midwife, her nutritionist, and her endocrine specialist. Emily decided that she's even going to talk to a lactation consultant now so she can have time to prepare for breastfeeding. She knew how to measure how much protein she was getting in her protein powder, but she needed help estimating how much protein she naturally gets in her diet as well.

Have more questions about supplements or other exposures during pregnancy or breastfeeding? Talk to a teratogen-information specialist at MotherToBaby.org.

References

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