

Protein 4.D.

Describe proteins and their role in the body (4 pts.) Proteins are chains of amino acids connected by peptide bonds. Amino acids are used for almost everything in the body, that is why they are so important. They are responsible for cell growth, replacement, and repair. They also fight infection and are part of enzymes and hormones which control every process in the body.

Critical thinking: Knowing the role of protein, why childbearing requires additional protein intake? (2 pts.) During pregnancy you have many things happening that require protein. You have an increase in several hormones over a long period of time, you are growing and adding new cells to the uterus and placenta, and you are creating an entire new human with all the organs and parts necessary. So, a lot of amino acids are needed, and those come from eating more protein.

Summarize your understanding of essential amino acids and why it is important for a person of non-meat-eating diets to consume variety of protein dynamic foods each day. (4 pts.) Our bodies can make some amino acids but others we must get from our food. They help us make protein, hormones, and other molecules our bodies need. Animal based proteins and soy give a person all 9 essential amino acids, plant foods are high in some and lower in others. So, you would need to eat a variety of plant-based protein foods, and in proper combinations, to maximize their use and get all the amino acids you need.

Glycine: Evaluate how pregnancy influences this amino acid requirement, why it is important for childbearing (4 pts.) Normally glycine isn't considered essential, and your body can create it from other amino acids when it is needed. But during pregnancy the body cannot keep up with the demand because it is needed for so many things. Glycine is essential for forming fetal DNA, their internal organs, connective tissues, bones, blood vessels, skin, and joints. It is also required for your uterus, placenta, and skin as they grow.

Discuss why protein is a nutritional consideration for glycemic response and symptoms that suggest increasing consumption of this macronutrient. (5pts) Protein helps stabilize blood sugar preventing it from getting too high or too low. If you are having headaches, low energy, blood sugar issues, food cravings, or feel hungry all the time eating more protein could help. It can also help with the nausea and tiredness of early pregnancy.

Examine recommendations for protein intake and how they fluctuate over pregnancy (5pts) Protein intake increases from infancy to adulthood and then stabilizes. Pregnancy requires more protein than during a non-pregnant state, and the need increases greatly throughout the pregnancy as well. The body cannot store protein for later use, so you must eat enough each day for whatever your body needs to accomplish that day. Some periods of time during pregnancy require a lot of protein because of the growth of your body or the baby. Getting enough daily protein ensures that your body and baby will have enough building blocks to make what they need to. In the first half of pregnancy try to eat 80 grams of protein each day, in the second half try for 100 grams.

Iris is 7 weeks pregnant and has been having low-energy, headaches and nausea, which is preventing regular eating. They are vegetarian and rely heavily on crackers and plain pasta. Exemplify how you might talk with this client about protein for these symptoms and ideas to increase protein intake. (7 pts.) Your symptoms are very common in early pregnancy and are usually caused by the hormonal changes happening. There are some things you can try that might help you feel better. Sometimes when we feel bad, we don't eat much. That can actually make you feel worse. It's important that you keep your blood sugar stable, your energy up, and give your body everything it needs to grow this baby. Protein is the key. It can stabilize your blood sugar, ease nausea and headaches, and increase energy levels. I know you are vegetarian, but there are some high protein plant foods you can eat such as: almonds, pecans, peanuts, walnuts, hazelnuts, pumpkin seeds, sunflower seeds, hemp seeds, chia seeds, cashews, beans, peas, lentils, tofu, edamame, nutritional yeast, spelt, spirulina, quinoa, wild rice, oatmeal, soy milk, broccoli, spinach, asparagus, artichokes, potatoes, sweet potatoes, and brussels sprouts, sweet corn, guava, mulberries, blackberries, nectarines, and bananas. Try oatmeal with almond butter, hummus with pita bread, rice with beans, or another combination to get a good variety of essential amino acids.