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1. What do you understand by the term "biological value of proteins": biological value is a measure of the proportion of absorbed protein from a food which becomes incorporated into the proteins of the organisms body. It captures how readily the digested protein can be used in protein synthesis in the cells of the organism.

Four methods of assessment of protein quality are:

- 1. Chemical score or amino acid score
- 2. Net protein utilization (NPU)
- 3. Protein efficiency ratio (PER)
- 4. Biological value (BV).
- A. Biological value: the biological value, or BV, test examines nitrogen balance. This relates to the body's ability to digest, absorb and excrete given protein, which are the body's source of nitrogen. Biological value testing is a lengthy and somewhat expensive process that requires test subjects to fast for several days and then adhere to a strict diet containing protein in only the form being tested.
- B. Chemical score: chemical score compares essential amino acid, EAA, levels to measure protein quality. The EAA profile of being tested is compared to a reference protein that has been assigned a score of one hundred. The EAA in lowest quantity relative to the reference protein is determined to be the limiting amino acid.
- C. Protein efficiency ratio: the protein efficiency ratio is a somewhat outdated method, though it is used by governments around the world. Lab rats are fed set amounts of a protein and then measured as they grow. The amount of weight they gain in grams, giving a per score.
- D. Protein digestibility corrected amino score: it is used by the food and agricultural organization as well as the world health organization, it refers to the quality of a protein in terms of the amino acid requirements of two to five year old humans.