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Nutrition assignment

1. Biological value of protein is defined as a measure of the proportion of absorbed protein from a food which becomes incorporated into the proteins of the organism's body. It captures how readily the digested protein can be used in protein synthesis in the cells of the organism.

2. Protein efficiency Ratio (PER)

Net protein Ration (NPR)

Relative Nutritive value (RNV)

Nitrogen balance index

Tissue regeneration

Microbiological Assays

Plasma Amino Acid

- A. PER- Is the easiest method of accessing the quality of proteins. Generally accepted is the idea that the rate of growth of weaning rats under standardized conditions provides a reliable measure of the value of dietary protein; thus PER is the gain in body weight divided by the amount of protein consumed: $\text{weight gain} \div \text{protein intake}$.
- B. NPR- a measure of protein quality. It is calculated as the overall difference in gain (gain in weight of the protein frequency group) divided by the protein eaten.
- C. Nitrogen balance index- nitrogen input minus nitrogen output
- D. Tissue regeneration- a variety of techniques involving the recovery of weight or of specific tissues after protein depletion have been proposed (42,43,44,45). The specific merits of such assays as opposed to weight gain of young rats for example remain to be demonstrated.
- E. Microbiological assays- sort of bio assays designed to analyse the compounds or substances that have impact on microorganisms.
- F. Plasma amino acid- a screening test done on infants that looks at the amount of amino acid in the blood. Amino acid are the building block for protein in the body.