

18/mhs06/019

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1. A functional food is a food claimed to have an additional function by adding new ingredients or more of existing ingredients. These terms can also be referred to have purposely bred into existing edible plants, such as purple or gold potatoes having enriched anthocyanin or carotenoid contents e.t.c.

### B- Conventional and modified foods

- Conventional foods - They are natural, whole food ingredients that are rich in important nutrients like vitamins, minerals, antioxidants and heart-healthy fat
- Modified foods - They are foods that have been fortified with natural ingredients such as vitamins, minerals, probiotics or fiber, to increase a food's health benefits

C - They prevent nutritional deficiencies, e.g. when iron-fortified flour was introduced, the rates of deficiency in iron among children have been nearly cut by half

- They protect against diseases, e.g. foods high in omega-3 fatty acids and fiber can help reduce inflammation, boost brain functions and promote better ~~Sugar~~ Sugar Control e.t.c

- They promote growth and development e.g. Foods like cereals, grains e.t.c that are usually fortified with B vitamins like folic acid which is essential for fetal health

2. Nutrition Status Assessment can be defined as the interpretation from dietary, laboratory, anthropometric and clinical studies, it is used in determining the nutritional status of an individual or population influenced by the intake and utilization of nutrients

a) Anthropometric assessment is the measurement of the size, weight and proportions of the body. The common anthropometric measurements include height, weight, head circumference, skinfold and MUAC.

Applications:- It is used to assess the growth and development of humans, both in utero and during childhood.

3) Fertility:- This is in this stage nutrition is highly required in achieving pregnancy, so this is the intake of high dosage of vitamins, antioxidants

etc so as to achieve pregnancy

**pregnancy:-** Nutrition there is the requirement of both macro and micro nutrient at this stage as well as protein requirement for fetal growth and milk production

**\* lactation:-** At this stage this is when there is high requirement for the intake of vitamin A, C, E and B, sodium and magnesium so as to enhance production of milk and keep the mother healthy.

**\* Infancy and early childhood:-** At this stage this involves requirement for macro and micronutrients at a higher level than any developmental stage due to rapid cell division occurring during growth e.t.c. There is increased need for foods containing energy, protein, essential fatty acids

**\* Adolescence:-** At this stage higher intake of protein is required due to hormonal developments and changes e.t.c. There is increased requirements in energy, protein, calcium, phosphorus, magnesium and zinc (females only)

**\* Adulthood:-** At this stage most requirements are similar to that in the adolescence stage but with an exception in certain minerals which are needed for bone growths. Micronutrients needs in adults differ slightly according to gender

**\* Later years (Elderly):-** At this stage due to certain reductions in lean body mass, metabolic rates and physical activities there are decreased needs for energy and iron in females while there is increased need for vitamin D.