**A.1 Components of the human diet.**

The individual sections of this page are cross referenced to their [sources](http://www.nutrition.gov/nal_display/index.php?info_center=11&tax_level=1&tax_subject=392.).

[A.1.1 Define *nutrient*.](http://click4biology.info/c4b/A/A1.htm#A11)  
  
[A.1.2 List the types of nutrient that are essential in the human diet](http://click4biology.info/c4b/A/A1.htm#A12)  
  
[A.1.3 State that non-essential amino acids can be synthesized in the body from other nutrient](http://click4biology.info/c4b/A/A1.htm#A13)  
  
[A.1.4 Outline the consequences of protein deficiency malnutrition](http://click4biology.info/c4b/A/A1.htm#A14)  
  
[A.1.5 Explain the causes and consequences of phenylketonuria (PKU) and how early diagnosis and a special diet can reduce the consequences](http://click4biology.info/c4b/A/A1.htm#A15)  
  
[A.1.6 Outline the variation in the molecular structure of fatty acids, *cis-* and *trans-* unsaturated fatty acids, monounsaturated and polyunsaturated fatty acids.](http://click4biology.info/c4b/A/A1.htm#A16)   
  
[A.1.7 Evaluate the health consequences of diets rich in the various types of fatty acid](http://click4biology.info/c4b/A/A1.htm#A17)  
  
[A.1.8 Distinguish between vitamins and minerals in terms of their chemical structure](http://click4biology.info/c4b/A/A1.htm#A18)  
  
[A.1.9 Outline two of the methods that have been used to determine the recommended daily intake of vitamin C](http://click4biology.info/c4b/A/A1.htm#A19)  
  
[A.1.10 Discuss the amount of vitamin C that an adult should consume per day, including the level needed to prevent scurvy, claims that higher intakes protect against upper respiratory tract infections, and danger of rebound malnutrition.](http://click4biology.info/c4b/A/A1.htm#A110)  
  
[A.1.11 List the sources of vitamin D in human diets.](http://click4biology.info/c4b/A/A1.htm#A111)  
  
[A.1.12 Discuss how the risk of vitamin D deficiency from insufficient exposure to sunlight can be balanced against the risk of contracting malignant melanoma.](http://click4biology.info/c4b/A/A1.htm#A112)  
  
[A.1.13 Explain the benefits of artificial dietary supplementation as a means of preventing malnutrition, using iodine as an example.](http://click4biology.info/c4b/A/A113)

[A.2.1 Compare the energy content per 100g fat, carbohydrate and protein.](http://click4biology.info/c4b/A/A2.htm#a21)

[A.2.2 Compare the main dietary sources of energy in different ethnic groups.](http://click4biology.info/c4b/A/A2.htm#a22)

[A.2.3 Explain the possible health consequences of diets rich in carbohydrates, fats and proteins.](http://click4biology.info/c4b/A/A2.htm#a23)  
  
[A.2.4 Outline the function of the appetite control centre of the brain.](http://click4biology.info/c4b/A/A2.htm#a24)  
  
[A.2.5 Calculate body mass index (BMI) from the body mass and height of a person.](http://click4biology.info/c4b/A/A2.htm#a25)

[A.2.6 Distinguish, using the body mass index, between being underweight, normal weight, overweight andobese.](http://click4biology.info/c4b/A/A2.htm#a26)

[A.2.7 Outline reasons for increasing rates of clinical obesity in some countries, including availability of cheap high-energy foods, large portion sizes, increasing use of vehicles for transport, and a change from active to sedentary occupations.](http://click4biology.info/c4b/A/A2.htm#a27)

[A.3.1 Distinguish between the composition of human milk and artificial milk used for bottle-feeding babies.](http://click4biology.info/c4b/A/A3.htm#a31)  
[A.3.2 Discuss the benefits of breastfeeding.](http://click4biology.info/c4b/A/A3.htm#a32)  
  
[A.3.3 Outline the causes and symptoms of type II diabetes.](http://click4biology.info/c4b/A/A3.htm#a33)   
 [A.3.4 Explain the dietary advice that should be given to a patient who has developed type II diabetes.](http://click4biology.info/c4b/A/A3.htm#a34)

A.3.6 Evaluate the benefits of reducing dietary cholesterol in lowering the risk of coronary heart disease.