

## The difference between phenylalanine and natural protein

Phenylalanine is an amino acid found in natural protein. Different foods contain different amounts of phenylalanine. In animal (e.g. meat, fish, milk and eggs) and cereal protein sources (e.g. wheat flour and breakfast cereal), usually the amount of food that is calculated to provide 1 g protein will supply approximately 50 mg phenylalanine. Animal and cereal proteins contain around 5% phenylalanine. *This means that the phenylalanine content of these foods can be estimated from the food protein labelling, without knowing the phenylalanine content.*

However, fruits and vegetables usually contain a lower and more variable phenylalanine content, between 20 to 40 mg/per 1 g protein. Consequently the phenylalanine content of fruit and vegetables cannot be calculated accurately from the food nutritional analysis label on a packet/container that only declares the protein content. The protein content may give the impression these foods are higher in phenylalanine than they are (exceptions include spinach, peas, seaweed, kale and sweetcorn which have a higher phenylalanine/protein ratio).

Many fruits and vegetables have been analysed specifically for their phenylalanine content [2–4].