



Welcome to our monthly Newsletter...

Getting your B Bounce!

A vitamin is defined as an organic compound that is distinct from protein, fat or carbohydrate. There are 13 essential vitamins, nine water soluble (B group and C) and four fat soluble (A, D, E, K). They each have different functions within the body, including energy release and involvement in metabolic reactions. They are essential in small amounts, and most (with exception of vitamin D and K) are derived from the diet.

B-group vitamins are essential for energy production and making red blood cells. The body uses energy yielding nutrients such as carbohydrates, fat and protein for fuel. B-group vitamins help the body to use that fuel to generate energy.

Types of B-vitamins:

- **B1 (Thiamin)**: Helps to convert glucose into energy and has a role in nerve function. Food sources include wholemeal cereal grains, seeds, legumes, wheatgerm, yeast, nuts and pork.
- **B2 (Riboflavin)**: Is involved in energy production and helps vision and skin health. Food sources include milk and milk products, egg white, leafy green vegetables, meat, yeast, liver and kidney.
- **B3 (Niacin)**: Helps the body convert carbohydrates, fat and protein into energy. It helps maintain skin health and supports the nervous and digestive system. Liver and kidney are the richest sources but also found in meat, fish, poultry, milk, eggs, wholegrain breads and cereals and peanuts.
- **Biotin**: Is a co-enzyme and is involved in synthesis of fatty acids, glucose production, leucine metabolism as well as metabolism of amino acids, cholesterol and fatty acids. Food sources include liver, egg, chicken, peanuts, mushrooms and yeast.
- **Pantothenic acid**: Is a component of coenzyme A which is involved in fatty acid metabolism. It is also involved in the production of red blood cells and steroid hormones. Deficiency is rare but extreme deficiency could result in muscle weakness, depression and fatigue. Good food sources include liver, milk, kidneys, eggs, meats, yeast, peanuts and legumes.
- **B6 (Pyridoxine)**: Comprises of multiple compounds and acts as a conenzyme in the metabolism of amino acids and glycogen. It is also involved in the production of brain chemicals and influences brain processes and development, immune function and steroid hormone activity. Food sources include whole grain products, legumes, fish and shellfish, green leafy vegetables, meat and poultry, nuts, liver and fruit.

- **B12 (Cyanocobalamin):** Helps to produce and maintain myelin sheaths surrounding nerve cells, mental stability, red blood cell formation and the breaking down of some fatty acids and amino acids to produce energy. Deficiency can cause tiredness, fatigue, lack of appetite, depression and anemia. Good sources include liver, meat, milk, cheese and eggs, almost anything of animal origin.
- **Folate:** Is needed to form red blood cells, which carry oxygen around the body. It helps the development of the foetal nervous system, as well as DNA synthesis and cell growth. Women of child-bearing age require a folate rich diet to prevent risks of neural tube defects and spina bifida for the baby. Food sources include leafy green vegetables, legumes, seeds, liver, poultry, eggs and fortified cereals.

It is evident that the B group of vitamins has pivotal functions in metabolic pathways in energy production and hence a deficiency of these can result in undesirable symptoms and side effects. Deficiency due to an inability to consume various food products can be subsided by supplementation to ensure RDI is maintained.

DESIGNER DIETS RECIPE OF THE MONTH

Lamb Koftas with minted yoghurt

Serves 4

Ingredients

500 g premium/trim minced lamb
 small onion, minced
 1 garlic clove, minced
 1 tablespoon continental parsley, chopped
 1 tablespoon coriander, chopped
 1/4 teaspoon cayenne pepper
 1/2 teaspoon allspice, ground
 1/4 teaspoon ginger, ground
 1/2 teaspoon paprika, ground



Mint Yoghurt

1 cup yoghurt
 1 garlic glove, minced
 3 teaspoons chopped fresh mint leaves

Method

1. Mix the lamb, herbs, spices in a bowl and season with pepper. Roll into small balls.

2. Cook on hot grill for 3-5 minutes each side of until cooked through
3. For minted yoghurt, combine ingredients in bowl, season to taste
4. Serve kebabs with dollops of minted yoghurt

We hope you have enjoyed our monthly newsletter and look forward to hearing from you in the near future.

Warm regards,

Geraldine Georgeou, Marianne Ghattas and the Designer Diet Team