



Vitamin B1 - Thiamin	
Description	Thiamin is water soluble and part of the B-group vitamins
Function	Thiamin aids the nervous system and is essential for the functioning of some important enzymes. These enzymes have vital roles in the processes that make energy available in the body. Thiamin is essential for the transmission of certain types of nerve signal between the brain and the spinal cord.
Human Requirements	Thiamine requirements depend on energy intake; values are therefore often given as mg/1000 kcal and also as total values based on estimated average energy requirements for the majority of people in the UK EU RDA: 1.4mg
Dietary Intake	In the UK, the average adult diet provides: for men, 2.0mg daily; for women, 1.54mg ¹ .
Food Sources	Brown rice, peas, beans and other vegetables, fortified breakfast cereals, and wholemeal breads and cereals, pork, bacon and liver.
Deficiency Symptoms	Thiamine deficiency may lead to beri-beri (rare in the UK). Deficiency is associated with abnormalities of carbohydrate metabolism. Early signs of deficiency include depression, poor memory, muscle weakness and stiffness, nerve tingling, burning sensation and numbness, tiredness, headache, loss of appetite and nausea.
Precautions / Contra-Indications	Known hypersensitivity to thiamine. Safe Upper Level: 100mg ²
Pregnancy & Breastfeeding	Thiamine is suitable to be taken during pregnancy and breastfeeding
Adverse Effects	There appear to be no toxic effects (except possibly gastric upset) with high oral doses. There have however been rare reports of anaphylactic reactions (coughing, difficulty in breathing and swallowing, flushing, skin rash, swelling of face, lips and eyelids).
Interactions¹	Excessive alcohol intake induces thiamine deficiency. Adequate amounts of all B vitamins are required for optimal functioning; deficiency or excess of one B vitamin may lead to abnormalities in the metabolism of another.
References	1. Mason, P. Dietary Supplements. Pharmaceutical Press, London, 2001. 2. Expert Group on Vitamins and Minerals, 2003.