

## **About Thiamine (B1) and Thiamine Deficiency (also spelled Thiamin)**

### *What does thiamine do?*

Thiamine (vitamin B1) is an important nutrient for taking energy from food and turning it into energy for your brain, nerves and heart. It is needed by the body to process fats, and proteins – and especially important for processing carbohydrates (sugars and starches).

### *What happens if my thiamine is low/if I don't get enough thiamine?*

Your body stores very little thiamine, so deficiency can happen very quickly – especially if you are not eating much or if you are vomiting for any reason.

Thiamine deficiency may be called Beriberi or Wernicke's Encephalopathy depending on how it presents. When you don't get enough thiamine, you may first have nausea, vomiting, loss of appetite, fatigue and difficulty concentrating. You may also have weakness, sleepiness, changes in personality and memory, leg and foot cramping, burning feet, headache, constipation, and abdominal cramping.

If thiamine deficiency is severe, serious problems can result including loss of hearing, permanent nerve damage, coma, permanent brain damage, heart damage, liver damage, and death.

### *What are other symptoms?*

Other symptoms of thiamine deficiency include:

- Blurred or double vision
- Difficulty swallowing/taking pills
- Facial weakness
- Amnesia, memory loss, dementia
- Rapid heartbeat
- Faintness on standing up
- Leg swelling
- Difficulty urinating
- Numb/painful hands/feet
- Foot drop, leg weakness
- Clumsiness, loss of balance, falling
- Loss of muscle

### *Where can I get thiamine?*

Thiamine is found throughout the diet, but fortified cereals, beans/peas, nuts and pork are very good sources. Other sources are also milk, cheese, fresh and dried fruit, and eggs. Some foods can also inhibit thiamine absorption – the most important ones are coffee, black tea and alcohol. Thiamine is also found in dietary supplements. Almost all multivitamins have thiamine. It is also found in B-complex and alone in tablets or capsules. Thiamine has a sulfuric smell that many people find unpleasant, but it is normal. If you have thiamine deficiency, your doctor will probably ask you to take supplemental thiamin and watch your dietary intake.

### *Other important things*

If you have thiamine deficiency, it is important that you follow up with your doctor for lab tests and other recommended care.