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ESSENTIALS

THIAMIN 100 mg

Contributes to the normal function of the nervous system and psychological function.

Nutritional Information

One Tablet provides:

		*%NRV
Thiamine mononitrate	129.04 mg	
Providing vitamin B1	100 mg	9091

*NRV = Nutrient Reference Values

One tablet daily, taken with your main meal.



SUMMARY

- High strength
- Easy one a day formula

DESCRIPTION

Thiamin, also known as vitamin B1 is a water-soluble vitamin that is required for the health of the nerves and the brain and is often found to be deficient in people undergoing alcohol withdrawal, and in alcoholics.

Thiamin is also needed to help convert carbohydrates into fuel and is useful for those wishing to lose weight, or those with diabetes.

THIAMIN DEFICIENCY

Although extreme deficiency states such as beri beri are rare today, the prevalence of thiamin inadequacy is high in certain population groups and can cause devastating effects.

Alcohol consumption: Thiamin deficiency in alcoholics or those withdrawing from alcohol may cause damage to the brain in a condition known as Wernicke Korsakoff syndrome. The symptoms are very unpleasant and include haziness, involuntary eye movements, difficulty walking, partial paralysis of the eyes, psychosis and memory loss. Wernicke Korsakoff syndrome can be fatal if ignored. Alcohol significantly reduces the absorption of thiamin across the gut and over time leads to severe deficiency.

Gastric surgery: Wernicke Korsakoff syndrome is also seen in patients under going rapid weight loss, particularly those who have undergone gastric surgery for weight loss¹.

Diabetes: Mild thiamin deficiency inhibits the phosphogluconate pathway², which is a series of chemical reactions in the body that generates NADPH and 5-carbon sugars and ribose-5 phosphate, which are necessary for the creation of nucleotides in the body. Phosphogluconate inhibition contributes towards the pathology of diabetic neuropathy². High dose thiamin supplementation can correct dyslipidemia in diabetics one study reported². Cholesterol and triglycerides were normalised. Thiamin deficiency causes dysfunction of cells and impaired glucose tolerance, and therefore supplementation should be given to type 2 diabetics to prevent dyslipidaemia and the development of vascular complications.

Studies show a decrease in microalbuminuria, a condition where there is excess albumin in the urine due to abnormal functioning of the kidneys. Thiamin supplementation decreases the severity of the condition and should be given to those with diabetic nephropathy⁶.

Blood: A properly functioning phosphogluconate pathway is required for the health of red blood cells. The phosphogluconate pathway produces NADPH which reduces glutathione back into its antioxidant state and able to neutralise reactive oxygen species (ROS). The neutralising of ROS is particularly important for red blood cells. Red blood cells do not have mitochondria and therefore have no other way of neutralising free radicals³, and become susceptible to damage.

Nerves: Vitamin B1 is required for the development and maintenance of the myelin sheath which coats the nerves and helps to control the speed of neurotransmission. Because of this, the nerves are very sensitive to thiamin deficiency. The reduced ability to neutralise ROS which comes with a under functioning phosphogluconate pathway is the primary reason for nerve damage. Excess ROS cause damage to the mitochondria in nerve cells and lead to reduced energy output and therefore a reduction in cellular function, and even cell death⁴.

Thiamin is required for the production of acetylcholine, a neurotransmitter which is required for nerve to nerve and nerve to muscle communication.

Heart: The heart is another organ that requires high levels of thiamin. The heart cells contain many mitochondria due to its massive energy expenditure and is susceptible to ROS damage. Vitamin B1 is also needed for the production of the neurotransmitter acetylcholine which is the messenger between the nerves and muscles. Thiamin deficiency is

prevalent in patients with congestive heart failure⁵. Supplementation results in significant improvement, especially in left ventricular ejection fraction, studies conclude⁶.

HOW SHOULD THIAMIN 100 mg BE TAKEN?

One tablet daily, taken with your main meal.

ARE THERE ANY PRECAUTIONS BEFORE OR WHILE TAKING THIAMIN 100 mg?

Thiamin 100 mg is intended exclusively for adults and is not suitable for:

- Pregnant and breastfeeding women;
- Children.

Consult your doctor before taking thiamin 100 mg with any medication.

FEATURES

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- Easy one a day formula

HEALTH NEEDS



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WOMEN'S HEALTH

SCIENTIFIC REFERENCES

- 1) Obesity Surgery.2002;12:3:328-34.
- 2) Current Diabetes Reviews.2005;1:3
- 3) Biochemistry 5th edition.2002.
- 4) National institute of alcohol abuse and alcoholism. 2004
- 5) Ochsner J. 2013 Winter; 13(4): 495-499.
- 6) Diabetologia. 2009 Feb;52(2):208-12

