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ESSENTIALS

# STRESS B COMPLEX

Contributes towards psychological function, mental performance and the function of the nervous system\*

## Nutritional Information

One Tablet provides:

		*%NRV
Vitamin C	500 mg	625
Thiamin (B1)	19.5 mg	1773
Riboflavin (B2)	25 mg	1786
Niacin (B3)	25 mg	NE 156
Vitamin B6	10 mg	714
Folic Acid	400 µg	200
Vitamin B12	25 µg	1000
Biotin	25 µg	50
Pantothenic Acid	25 mg	417
Choline Bitartrate	25 mg	
Inositol	25 mg	
PABA	25 mg	

NE = Niacin equivalent \*NRV = Nutrient Reference Values

Take one tablet daily with a meal. Swallow with water.



## SUMMARY

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- Quick release formula.
- Medium potency formulation.
- Full spectrum of B vitamins with PABA, choline and inositol.
- With vitamin C.

## DESCRIPTION

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A medium potency quick release formula providing a full spectrum of B vitamins with vitamin C. Stress B complex is designed to support a hectic lifestyle, concentration levels, a reduction in tiredness and fatigue and to support a healthy stress response.

B vitamins and vitamin C are needed for the immune system to function effectively. Often the immune system becomes less effective in states of stress which can lead to increased incidences of infections.

Stress B complex contains B vitamins as well as vitamin C, PABA, choline and inositol for a synergistic effect.

## SUPPORTING A HETIC LIFESTYLE

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**The Krebs cycle:** B vitamins are required directly for the energy production cycle, also called the krebs cycle. They are used as important cofactors.

- Niacin (B3) – NADH.
- Riboflavin (B2) - FADH.
- Pantothenate (B5) - Coenzyme A.
- Vitamin B12 - methylmalonyl-CoA.

NADH, FADH, Coenzyme A and methylmalonyl-CoA feed directly into the krebs cycle where they aid in the production of ATP, a vital energy source. Insufficient intake of B vitamins can impair energy production.

**Oxygen transportation:** Another way that B vitamins contribute towards energy production is with the oxygen transportation in the body. Vitamins B3, folate and B6 are all required for the synthesis of all haem proteins, including haemoglobin, necessary for iron transportation and energy production<sup>1</sup>. Anaemia can be caused by a deficiency in any of these nutrients, as well as a deficiency in iron. In the case of iron deficiency anaemia, a B complex should be taken for a multi-therapeutic approach to recovery.

**The thyroid:** The thyroid is an essential gland for metabolism and energy production, and requires vitamin B2 to work effectively. Vitamin B2 is required as a cofactor in the synthesis of flavoproteins (proteins that contain nucleic acids). These are essential for the proper function of the thyroid<sup>1</sup>.

## IMMUNE SYSTEM

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**Normal antibody responses:** The effect of a B vitamin inadequacy on the immune system is profound, especially with the inadequacy of folate<sup>2</sup>. The thymus gland, where T lymphocytes are developed and taught self-tolerance, undergoes changes in the state of folate deficiency. Normal antibody responses have been shown to be decreased, increasing the chance of developing infections<sup>2</sup>.

**Methylation:** Further roles of B vitamins in the immune system are in the process of methylation. Folate and vitamin B12 work together in the methylation cycle to create metabolites (cysteine and then glutathione). Glutathione is a powerful antioxidant created as a result of methylation and requires B2 to activate it in a process called the redox cycle<sup>1</sup>. A delicate balance of glutathione is required for the optimum function of lymphoid cells<sup>3</sup>, thus making B12, B2 and folate essential components of the immune system.

**Inflammation:** B vitamins are part of a complex reaction within the immune system. Vitamin B3<sup>1</sup> and B6 are vital nutrient required for the production of C1 proteins<sup>4</sup>. These aid with phagocytosis and inflammation, both core factors in infection resistance.

## BRAIN FUNCTION

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**Blood brain barrier:** B vitamins are required for the health of the nerves and are actively transported across the blood brain barrier, where their levels are tightly regulated<sup>1</sup>.

**Neurotransmission:** Choline is required for the creation of Acetylcholine, and B1 plays a neuro-modulatory role in acetylcholine neurotransmission. Acetylcholine is a neurotransmitter required for nerve to nerve communication, muscle function<sup>5</sup>, learning and memory<sup>6</sup>.

**Mood and sleep:** B vitamins are required for mood and sleep. Vitamin B6 and folate are required as cofactors in the synthesis of many neurotransmitters including dopamine, serotonin and GABA. Suboptimal levels of B6 cause a decrease in the production of these neurotransmitters which can effect mood and sleep<sup>1</sup>.

**Deficiency:** B vitamins play an essential role in neurotransmission. Cognitive decline, neurological and psychiatric symptoms can result as a deficiency in any of the B vitamins<sup>1</sup>, and most commonly folate and B12<sup>7</sup>.

## THE STRESS RESPONSE

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**Serotonin:** Vitamin B6 and folate are required for the production of serotonin. Serotonin is an essential neurotransmitter in the ability to cope with stress.

**Adrenal glands:** Another essential nutrient in Stress B complex is vitamin C, the only other water-soluble vitamin that is not part of the B family. Vitamin C is a core nutrient in the stress response, and is stored and released by the adrenal glands in times of stress<sup>8</sup>. B vitamins are needed as cofactors in the synthesis of adrenaline which is produced by the adrenal glands in times of stress, and enables the body to think and move quickly under pressure. In times of chronic stress, these can quickly become depleted.

## WHY IS A B COMPLEX PREFERRED TO SINGLE NUTRIENTS?

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**Synergy:** B vitamins work together and have a synergistic effect. Although a specific B vitamin may be required for a specific symptom, others may enhance that action.

- Vitamin B2 helps to recycle B3, folate and B6<sup>1</sup>.
- B3 is required for the conversion of folate into its bioactive form – methyltetrahydrofolate.
- A deficiency in either B12 or folate can appear the same, and taking just one of these can hide a deficiency state of the other.

**B vitamin deficiency:** We are very rarely deficient in just one B vitamin, although only one may present itself in a deficiency disease, this is with the exception of vitamin B12 in pernicious anaemia and veganism where a single deficiency is possible. A deficiency generally occurs due to poor diet, poor absorption or with an increased need, which most often effects all of the B vitamin family.

## HOW SHOULD STRESS B COMPLEX BE TAKEN?

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Take one tablet daily with a meal. Swallow with water.

## ARE THERE ANY PRECAUTIONS BEFORE OR WHILE TAKING STRESS B COMPLEX?

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Stress B complex is intended for use by individuals who wish to support the stress response, energy production, the immune system and brain function and is not suitable for the following:

- Pregnant and breastfeeding woman;
- Children.

Consult a healthcare professional before taking while on any medication.

## FEATURES

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- Medium potency vitamin B and C complex.
- Quick release tablet designed to provide full potency within 30 minutes for swift tissue saturation.

## HEALTH NEEDS

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DETOX AND CELL  
PROTECTION



ENERGY



EVERYDAY HEALTH  
AND WELLBEING



IMMUNITY



STRESS AND A  
HECTIC LIFESTYLE

## SCIENTIFIC REFERENCES

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