# Ultra B-Complex Tablets
**High potency B-complex vitamin**

## DESCRIPTION
Ultra B-Complex tablets, from Douglas Laboratories, is a comprehensive B supplement providing all of the essential B vitamins as well as related nutrients.

## FUNCTIONS
As co-enzymes, the B vitamins are essential components in most major metabolic reactions. They play an important role in energy production, including the metabolism of lipids, carbohydrates, and proteins. B vitamins are also important for blood cells, hormones, and nervous system function. As water-soluble substances, B vitamins are not generally stored in the body in any appreciable amounts (with the exception of vitamin B-12). Therefore, the body needs an adequate supply of B vitamins on a daily basis.

Thiamin, riboflavin, and niacin are all essential coenzymes in energy production. Thiamin is converted quickly into thiamin pyrophosphate, which is required for glycolytic and Kreb's cycle reactions. Thiamin also appears to be related to nerve impulse transmission. Riboflavin is a component of the coenzymes FAD and FMN, which are intermediates in many redox reactions, including energy production and cellular respiration reactions. Niacin is also a component of the coenzymes NAD and NADP, which are involved in energy production, as well as biosynthetic processes.

Vitamin B-6 is a coenzyme in amino acid metabolism. It is necessary for the metabolism of homocysteine and the conversion of tryptophan into niacin. Vitamin B-6 dependent enzymes are also needed for the biosynthesis of many neurotransmitters, including serotonin, epinephrine, and norepinephrine. Vitamin B-12 and folic acid are coenzymes in DNA and RNA metabolism. Both of these B vitamins assist in homocysteine metabolism. Folic acid serves as a methyl donor and vitamin B-12 as a coenzyme in the conversion of homocysteine to methionine.

Biotin and pantothenic acid are also coenzymes essential for energy production from dietary fats, carbohydrates, and proteins. Pantothenic acid is a component of coenzyme A and of phosphopantetheine, and is therefore essential for Kreb's cycle operation. Biotin is involved in many carboxylation reactions associated with gluconeogenesis, the Kreb's cycle, and fatty acid synthesis.

While not truly vitamins, choline, inositol, and para-aminobenzoic acid are important nutrients related to B vitamins. Choline serves as a methyl donor for homocysteine metabolism following conversion to betaine, as a structural component of cellular membranes as phosphatidylcholine, and as a neurotransmitter as acetylcholine. Inositol aids in the cellular response to hormonal signals, serves as a source of arachidonic acid, and is active in cellular membranes as phoshatidylinositol. Finally, para-aminobenzoic acid has antioxidant properties.

## INDICATIONS
Ultra B-Complex tablets may be useful for individuals who wish to supplement their diets with a complete array of B vitamins and related nutrients.

## FORMULA (#82050)
Each Tablet Contains: .....
Vitamin B-1(Thiamin)..... 50mg
Vitamin B-2(Riboflavin)..... 50mg
Vitamin B-3..... 50mg
(10 mg as Niacin/ 40 mg as Niacinamide)
Vitamin B-6(Pyridoxine)..... 50mg
Vitamin B-12..... 100mcg
Folic Acid..... 400mcg
Biotin..... 1,500mcg
Pantothenic Acid ..... 50mg
PABA(para-aminobenzoic aicd) ..... 150mg

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Choline Citrate/ Bitartrate).....50mg
Inositol .....50mg

## SUGGESTED USE
Adults take 1 tablet daily with meals or as directed by a physician.

## SIDE EFFECTS
No adverse side effects have been reported.

## STORAGE
Store in a cool, dry place, away from direct light. Keep out of reach of children.

## REFERENCES

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Zeisel, SH. Choline. A nutrient that is involved in the regulation of cell proliferation, cell death, and cell transformation. Adv Exp Med Biol 1996;399:131-41.

**For more information on Ultra B-Complex Tablets visit douglaslabs.com**

† These statements have not been evaluated by the Food and Drug Administration.
This product is not intended to diagnose, treat, cure, or prevent any disease.

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**Your patients trust you.**