

# *Vitamins*

*Vitamins are essential for a variety of body tissues to grow, and below are the main sources and how important they are to the body, daily maintenance and deficiency symptoms.*

# *1. Vitamin "A" (Retinol)*

*Essential for normal growth and vitality. Necessary for good sight and healthy skin. It protects the body against diseases, especially of the respiratory system*

# *Valuable Sources:*

*Cod liver oil, Whole milk, Curds, butter, Egg yolk,  
Pumpkin Carrots, Green leafy vegetables,  
Tomatoes, Mango, Papaya, Orange, Melon.*



# *Recommended Daily Allowances*

*Adults, 5000 I.U.*

*Children, 2000 to 4000 I. U.*



## *Deficiency Symptoms:*

*Eye infection, Poor vision, Night blindness,  
Frequent Colds, Lack of appetite and Skin  
disorders.*



## *Overdose Side effects:*

*Loss of appetite, Vomiting, Headache, Dryness of  
Skin and Hair loss.*

## *2. Vitamin "B1" (Thiamine)*

*Essential for the normal growth of the nervous system. Regulates carbohydrates metabolism, appetite and aids in digestion.*

## *Valuable Sources:*

*Wheat germ, Brewers yeast, outer layer of rice, wheat and other whole grain, Cereals, Pulses, Nuts, Peas, lime, Legumes, Kidney, Dark green leafy vegetables, Milk, Egg, Banana, Apple*





# *Recommended daily Allowances*

*Adults- 1.2 to 3.0 mg.*

*Children- 0.4mg*

# *Deficiency Symptoms*

*Serious impairment of the Nervous and digestive system, Neuritis, Beriberi, Weight loss, Diabetes, Mental depression and weakness of the heart.*



# *Side effects of overdose*

*Rapid Heartbeat, low blood pressure, Restlessness  
and Trembling.*

### *3. Vitamin B2*

*Essential for growth and General health, Healthy eyes, Skin, Nails and hair.*

## *Valuable sources*

*Green leafy vegetables, Milk, Cheese, Wheat germ,  
Egg, Citrus fruits, Banana, Tomato, brewers  
yeast, Almonds and sunflower seeds.*



# *Recommended Daily Allowances*

*Adults - 1.6 to 2.6 mg*

*Children - 0.6 to 1.0 mg*

# *Deficiency Symptoms*

*Burning sensation in the legs, lips and tongue,  
Cracking at the angles of the mouth, Cracks on  
heels, Premature wrinkles and Eczema.*



# *Overdose Symptoms*

*Itching and tingling in the extremities*



## *4. Vitamin B3 (Niacin/nicotinic acid)*

*Essential for proper circulation, healthy functioning of the Nervous system and proper protein and carbohydrate metabolism*



## *Valuable Sources:*

*Yeast, Liver, Fish, Whole wheat, Green leafy vegetables, tomatoes, Nuts, Sunflower seeds and Peanuts.*



# *Recommended Daily Allowances*

*Adults - 12 to 20 mg.*

*Children - 4.8 to 12 mg*



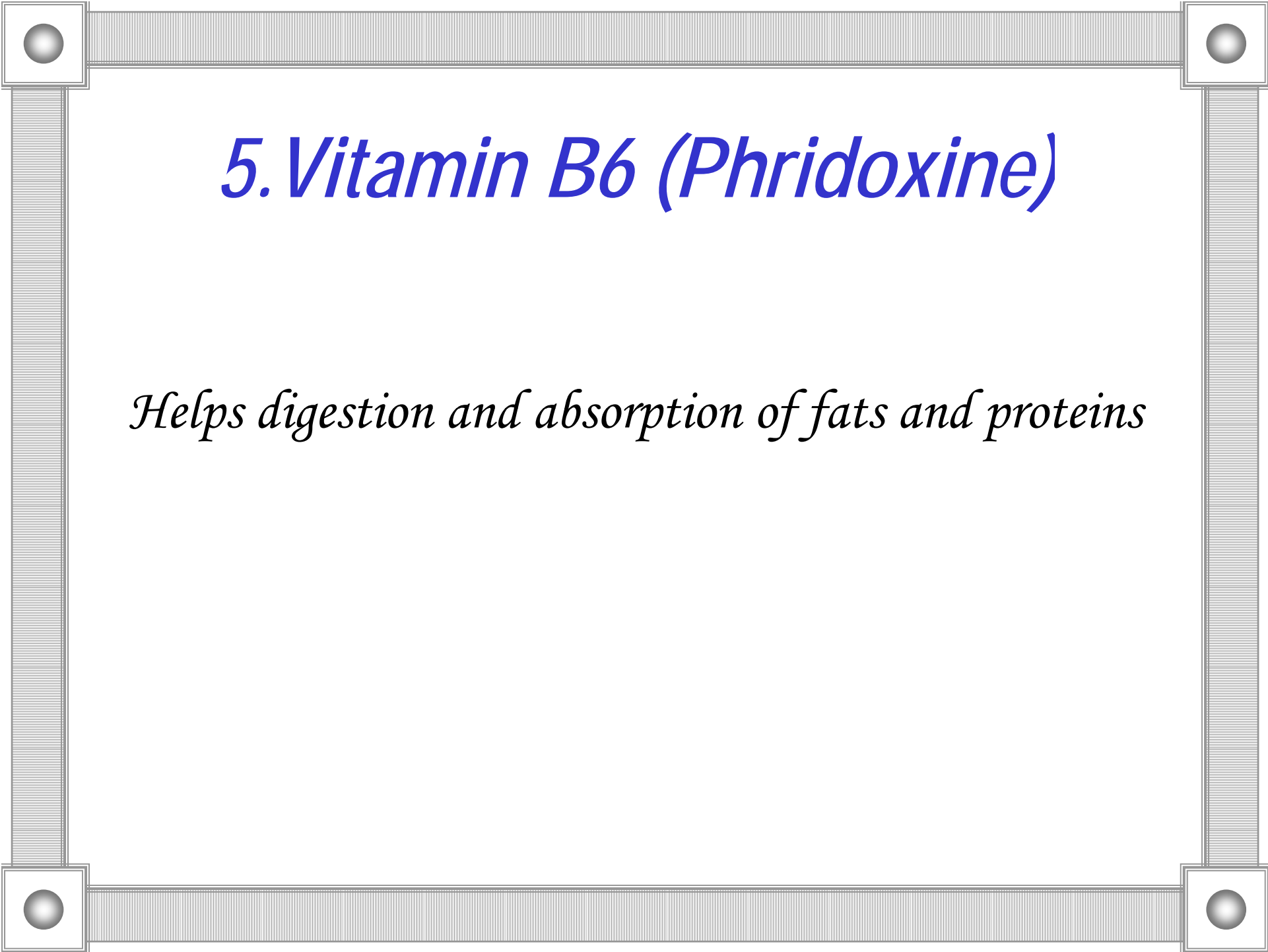
# *Deficiency symptoms*

*Pellagra, Diarrhea, Insomnia, anemia and mental disorders.*



# *Overdose side effects*

*Nausea, Vomiting, flashes and Tingling Sensation.*



## *5. Vitamin B6 (Phridoxine)*

*Helps digestion and absorption of fats and proteins*



# *Valuable sources*

*Liver, Rice, Milk, Brewers yeast, Cereals, Legumes,  
Meat, green leafy vegetables, Carrots and  
Peanuts.*



# *Recommended Daily Allowances*

*Not Defined*





# *Deficiency symptoms*

*Anemia, Skin disorders, Migraine, kidney stones and  
Mental disturbances.*



# *Overdose Side effects*

*Not established*

## *6. Vitamin B12 (Cynocobalamin)*

*Essential for the production of Red blood cells and for several metabolic and enzymatic processes.*



# *Valuable sources*

*Milk, Eggs, Liver, Bananas, Peanuts and  
Sunflower.*



*Recommended Daily Allowances*

*Not Defined*



# *Overdose Side effects*

*Not Established*

## *7. Vitamin B9 (Folic acid)*

*Essential for the growth and division of all body cells, healing processes and protein metabolism.*



## *Valuable sources:*

*Whole grains, Nuts and green leafy vegetables such as asparagus, green beans and peas.*





# *Recommended Daily Allowances*

*Not Defined*



# *Deficiency symptoms*

*Certain types of Anemia, Skin disorders and impaired circulation*



# *Overdose Side effects*

*Not Established*



*(8. Vitamin B5 Pantothenic acid)*

*Aids in normal growth of hair and prevents dermatitis.*



## *Valuable Source*

*Wheat germ, whole grain, bread, green vegetables,  
peanuts, liver and eggs.*



*Recommended Daily Allowances*

*Not Defined*



# *Deficiency symptoms*

*Mental depression, Irritability, Muscular weakness,  
Insomnia and skin disorders.*



# *Overdose Side effects*

*Not Established*



## *9. Vitamin C (Ascorbic Acid)*

*Essential for normal growth and maintenance of body tissues especially those of the joints, bones, teeth, and gums. Protects against infection and helps in quick healing of wounds.*

*Essential for normal development of hemoglobin.*

*A strong Anti-Oxidant and helps in strengthening the immune system.*



## *Valuable sources*

*Citrus, Green leafy vegetables, Amia, Sprouted Bengal and Green grams, Oranges, Mangoes and other fruits.*



# *Recommended Daily Allowances*

*Adults - 250 to 750 mg*

*Children – 130 to 150mg*

# *Deficiency Symptoms*

*Scurvy, Anemia, tooth decay, Bleeding gums, Painful and swollen body parts, slow healing of wounds and premature aging and Allergic reactions.*

# *Overdose side effects*

*Formation of kidney stones, menstrual bleeding in pregnant women, activation of peptic ulcers.*

## *10. Vitamin "D" (Calciferols)*

*Essential for proper bone and teeth formation and metabolism of Calcium and phosphorus.*



# *Valuable sources*

*Rays of the sun, fish, milk, butter, eggs and sprouted seeds.*



# *Recommended Daily Allowances*

*Adults - 400 to 800mg*

*Children - 400 to 800mg*





# *Deficiency System*

*Rickets, Tooth decay, Pyorrhea, Muscular weakness  
and deficiencies of bones*

# *Overdose effects Side*

*Irritability, Nausea, Vomiting, Constipation, High blood pressure and calcium deposits in arteries.*

# *11. Vitamin "E" (Tocopherols)*

*Essential for normal reproduction function, fertility and physical vigor. It dilates blood vessels and improves blood circulation.*



## *Valuable sources*

*Wheat or cereal germ, Whole grain products, Green leafy vegetables, Eggs, Milk and all whole raw or sprouted seeds.*



*Recommended daily Allowances*

*Not established*



# *Deficiency Symptoms*

*Degeneration of reproduction tissues, Liver diseases  
and sluggish blood circulation.*



# *Overdose side effects*

*High blood pressure*



## *12. Vitamin "K" (Cobalamins or Phylloquinones)*

*Necessary for blood clotting and the prevention of bleeding*





# *Valuable sources*

*Green leafy vegetables, Spinach, cabbage and  
tomatoes.*



*Recommended daily Allowances*

*Not established*



# *Deficiency symptoms*

*Certain types of Anemia, Skin disorders and impaired blood circulation.*

*Urge for eating soil or clay.*



# *Overdose side effects*

*Not Established*



*The end*