



MONTIFF INC

Don Tyson's Advanced Nutraceuticals



PURE GLYCINE

Glycine is involved with gluconeogenesis and is necessary for proper glucose balance, collagen formation and for healthy central nervous function.

Each capsule of Pure Glycine contains 500 mg. of pure, highest quality Glycine.

RECOMMENDED TO ENHANCE STRUCTURE & FUNCTION RELATING TO NUTRITIONAL NEEDS AND DEFICIENCIES PERTAINING TO:

- Promoting Gluconeogenesis
- Formulation of collagen, found in skin and connective tissue.
- Promoting synthesis of creatine to help prevent degeneration of muscle tissue and may have an effect on Muscular Dystrophy and other degenerative muscular disorders.
- Central nervous system by functioning as an inhibitory neurotransmitter and may have an effect on Epilepsy.
- Improper metabolism involved in non-Ketotic Hyperglycemia
- Participating in the synthesis of purines, porphyrins, and glyoxylic acid
- Prostate health
- Involved in bile acid metabolism and gastrointestinal function.

WHAT IS GLYCINE?

Glycine is a non-essential amino acid synthesized in the body through various complex pathways involving Threonine, Serine, Hydroxyproline and Choline metabolism. It is involved in the synthesis of purines, porphyrins, creatine and glyoxylic acid, and is also a biochemical constituent of the tripeptide glutathione. Glycine is also essential for the synthesis of bile and nucleic acids, and it is used in many commercial gastric antacid preparations. It is important in the central nervous system where it acts as one of the main inhibitory neurotransmitters. Although high amounts of Proline and 4-hydroxyproline are found in collagen (important for skin and connective tissue), almost 1/3 rd is comprised of Glycine. High amounts of Glycine are found in gelatin, which is a denatured collagen. Low plasma levels of Glycine are noted in hypoglycemics, those with viral infections and fevers, CFS (Chronic Fatigue Syndrome) and anemia. A metabolic disorder causing excessive levels of Glycine in the spinal fluid is responsible for Non-Ketotic Hyperglycemia, or Rett Syndrome, which has symptoms of autism.

GLYCINE AND GLUCONEOGENESIS

Glycine is considered a glucogenic amino acid, which includes others such as Glutamine, Alanine, Threonine, Serine, Methionine, Tyrosine, and Lysine, and thus is involved in maintaining blood sugar levels. Hypoglycemics are low in Glycine and supplementation with Glycine, along with other glucogenic amino acids, is beneficial in regulating low blood sugar levels, and increasing energy in those who are lethargic due to this condition.

GLYCINE AND NEUROLOGICAL EFFECTS

Glycine is one of the main precursors to inhibitory neurotransmitters, along with Taurine, GABA, and other such as Tyrosine, Phenylalanine, Serine and Threonine.

- **SCHIZOPHRENIA**
Research regarding supplementation with Glycine, along with traditional medications (antipsychotics), appear to have beneficial results with Schizophrenics, although less effective when combined with clozapine.
- **GLYCINE AND MEMORY AND ATTENTION**
Because of its receptor sites, Glycine appears to be beneficial in memory. In a double-blind crossover study, both young and middle-aged men significantly benefited with improved episodic memory. It was suggested that supplementation with Glycine could significantly improve memory that may be impaired due to jet lag, disrupted sleep, or work fatigue, and be helpful in memory retrieval problems associated with schizophrenia, Parkinson's disease and Huntington's disease.

*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

GLYCINE AND ANTICARCINOGENIC PROPERTIES

In a preliminary study over a 55-week period (published in 1999), Glycine was administered to animals with hepatic cancer. The results indicated that Glycine prevented the formation of small tumors by 23%, inhibited the development of medium tumors by 64% and prevented the formation of the largest tumors by nearly 80%. The study conclusion was that Glycine might be an effective chemoprotective agent. In another study published in 1999 with animals with melanomas, those fed with Glycine had 50-70% less tumor size than the control group. This study concluded that dietary Glycine prevents tumor growth in vivo by inhibiting angiogenesis via the inhibition of endothelial cell proliferation.

GLYCINE AND GROWTH HORMONE LEVELS

Studies have indicated significant increase in growth hormone levels on those who were administered between 4-12 grams of Glycine.

OTHER BENEFITS OF GLYCINE

- Increases creatine synthesis. Glycine, along with Arginine supplementation, increases endogenous creatine synthesis.
- Acute ischaemic stroke. A study of patients administered 1-2 grams of Glycine sublingually, within 6 hours after the onset of acute ischaemic stroke in the carotid artery, indicated favorable clinical effects.

WHAT ARE THE BENEFITS OF MONTIFF PURE GLYCINE?

- Montiff supplies the highest quality pure Glycine available in 500mg. capsules for fast assimilation.
- Desiccant pads are provided to insure optimal freshness.

DIRECTIONS: Take 2-4 capsules daily with glass of water or fruit or vegetable juice. Do not take with dairy products. For proper metabolism take with B Vitamins, and Montiff B-Complete or B-long are recommended.

REFERENCES

- Di Pasquale, M, *Amino Acids and Proteins for the Athlete, the Anabolic Edge*, 1997.
- Cynober, Luc (edited by), *Amino Acid Metabolism and Therapy in Health & Nutritional Disease*, 1995.
- Balch, J. M.D., Balch, P., C.N.C., *Prescription for Nutritional Healing*, 1997.
- Gusev, Skvortsova et al., "Neuroprotective Effects of Glycine for Therapy of Acute Ischaemic Stroke", *Cerebrovasc Dis.*, Jan.-Feb.2000.
- Rose, Cattley, Dunn, Wong et al, Univ. of N. Carolina, "Dietary Glycine Prevent the Develop. Of Liver Tumors Caused by the Peroxisome Proliferator WY-14, 643", *Carcinogenesis*, Nov. 1999.
- Rose, Madren et al, U. of N. Carolina, "Dietary Glycine Inhibits the Growth of B 16 Melanoma Tumors in Mice", *Carcinogenesis*, May 1999.
- Kasai, Kobayashi, Shimoda, "Stimulatory Effect of Glycine on Human Growth Hormone Secretion", *Metabolism*, 1978.
- Banay-Schwartz, Palkovitis, Lajtha, "A Heterogeneous Distribution of Functionally Important Acids in Brain Areas of Adult and Aging Humans". *Neurochem. Res.*, 1993.
- Evins, Fitzgerald, Wine, Rosselli, Goff, Mass. Gen. Hospital, "Placebo-Controlled Trial of Glycine to Clozapine in Schizophrenia", *Am. J. Psychiatry*, May 2000.

Copyright 7 2000©