SAMe:

Blister Packs with B12, B6 and Folate

Powerful Intervention for Optimal Neurochemistry, Arthritis, and Liver Health

SAMe Research - Proven Benefits:

Brain
- Alleviates depression and cognitive deficit
- Appetite reduction
- Improves neurotransmitter synthesis and receptor binding

Inflammation & Pain
- Reduces TNF-alpha
- Reduces fibromyalgia pain
- Reduces joint damage
- Joint regeneration in osteo & rheumatoid arthritis due to increased chondrocyte numbers

Liver
- Liver protection from toxins, drugs and alcohol
- Alleviates:
  - Hepatitis
  - Cirrhosis
  - Fibrosis
- Increases liver glutathione levels

SAMe is a naturally occurring metabolite found in the human body as well as in plant and animal foods. SAMe is naturally synthesized in humans from the amino acid methionine in the presence of the cofactors B12 and folate.

SAMe is the most active of all methyl donors and has been compared to ATP in its importance for the body. SAMe is involved in the synthesis of:

- **Neurotransmitters**
- **The hormone melatonin**
- **Phospholipids**
- **Polyamines, which control cellular growth**

It is also the source of methyl groups inside the nucleus for DNA methylation which controls gene expression and masking of genetic damage.

SAMe is extremely sensitive to degradation from air and moisture. DFH SAMe is superior to other products on the market due to its stability in the nitrogen blister packs and maximized bioavailability by an enteric coating. It is recommended that each blister be opened immediately before ingesting the tablet. DFH SAMe tablets are enterically coated in order to prevent its breakdown by stomach acidity and promote intact absorption in the small intestine. Vitamins B6, B12, and folate were added in order to provide cofactors for the natural conversions of SAMe to L-homocysteine and then safely to L-cysteine.

Even if the body is producing normal or average levels of SAMe, certain physiological states create an increased demand for it, such as: aging, dietary deficiency, inflammatory states, emotional/physical stress or genetic polymorphysms.

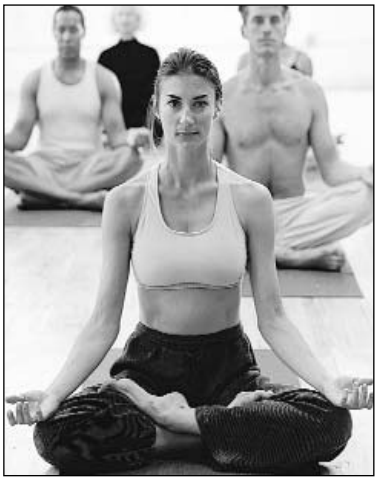
Sub-optimal levels of SAMe in some individuals may be due to insufficient amounts of the precursor amino acid methionine (vegetarianism or poor protein intake). Age-related decline in enzyme efficiencies throughout the body can be improved by increasing the supply of enzyme cofactors such as SAMe, B-vitamins, and magnesium.

SAMe and the Brain [6,7]

Inadequate levels of SAMe in tissues, plasma and cerebral spinal fluid have been found to be highly correlated with conditions such as depression, Alzheimer's, and dementia. This could be partly due to the fact that SAMe is involved in:

1. Synthesis of neurotransmitters (serotonin, dopamine, epinephrine).
2. Synthesis of brain cell membrane phospholipids: phosphatidylcholine and serine.
3. Improving neurotransmitter binding to receptors.
4. Improving the sleep quality through its cofactor role in the synthesis of melatonin.

SAMe has been found clinically to be as effective as tricyclic antidepressants in alleviating depression at doses of 200-1600mg/day and slowing the cognitive decline associated with senile dementia. A side effect of SAMe was found to be appetite suppression.



SAMe and the Liver [8,9,10]
SAMe was shown to improve liver function and provide protection from the hepatotoxic effects of medications (ie: acetaminophen), alcohol, and other toxins. It increases synthesis of glutathione, and it is a precursor of taurine and phosphatidylcholine, which are essential in detoxification pathways. These functions of SAMe could potentially be helpful for women taking HRT or BCPs, and those suffering from cholestasis and heavy metal toxicity.

SAMe and the Joints [1,2,3,4]
SAMe was found very helpful in preventing and reversing the damage caused by both osteo and rheumatoid arthritis through the following mechanisms:

- Regeneration of the joint tissues by increasing the number of chondrocyte cells which are responsible for the production of the collagen matrix, proteoglycans and chondroitin sulfate.
- Counteracts the destructive effect of the inflammatory cytokine TNF-alpha

Allowing for the synthesis of chondroitin sulfate via supplementation of SAMe may make more sense than trying to supplement chondroitin sulfate, which is a large difficult to absorb molecule. Many of the quality studies supporting the use of chondroitin sulfate were conducted with intravenous administration.

In addition, by improving serotonin levels, SAMe might improve pain tolerance in patients with fibromyalgia and other pain disorders.

Suggested Usage:

Initial dosing of SAMe should begin at 200 mg early in the day. SAMe should not be taken in the evening, because its natural circadian rhythm is high during the day and low in the evening and throughout the night. The dose can be increased after 5 days or more, 200 mg at a time, while evaluating its effectiveness. Absorption of SAMe is optimal on an empty stomach, however, taking SAMe with meals may be more clinically efficacious by slowing its delivery into the blood stream and creating a more natural increase in SAMe concentrations similar to that of endogenous production.

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