



# SAMe: (S-Adenosyl Methionine) Supplement of the Week

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After a long hiatus, the Supplement of the Week feature is back here at Middle Path Medicine. I have decided to re-launch this service as an answer to the misinformation campaign plaguing the mainstream media. Every other day there seems to be an attack on natural healing modalities and nutritional supplementation. What I hope to present is a concise (this being a relative term!), factual, science-based, yet approachable review of any nutrient that may support some aspect of your metabolism. All references will be included at the end of each article, and hopefully my quarter century of experience as a physician will help guide you through this new era of mass media healthcare propaganda.

## SAMe (S-Adenosyl Methionine)

What it is: a naturally occurring molecule; the combination of an adenosyl group with the amino acid methionine. Distributed through every tissue in the human body, peak levels occur in childhood and decrease with age. Involved in hundreds of enzymatic reactions primarily involving transmethylation (moving methyl groups around), SAMe contributes to the metabolism of hormones, neurotransmitters, and is especially active in cartilage and the liver.

What it does: Obviously with such a broad distribution throughout the body, SAMe has been used for over 40 years in the treatment of a variety of conditions, particularly: anxiety and depression, liver disease, and arthritis – primarily osteoarthritis. Its safety is exceptional, and it has been used intravenously in pregnant women without any evidence of harm to the fetus, while treating a relatively uncommon liver disease found in some pregnant women. Since it is best absorbed on an empty stomach, some people may experience an upset stomach while taking this supplement.

- **Depression/Anxiety:**  
Please see my PowerPoint presentation on depression and alternatives to antidepressants (<http://middlepathmedicine.com/ArticlesandPublications.html>). SAMe has been used for decades in the treatment of depression and is more effective than prescription medicines. It supports the metabolism of multiple

neurotransmitters and EEGs (a pattern of brain activity similar to how an EKG shows heart electrical activity) document a change in cerebral metabolism within one hour of ingesting SAME. Recent trials also show that SAME is far superior to placebo when combined with traditional drugs. Furthermore, one other trial documents that SAME can improve cognitive function in those people taking standard drug antidepressants.

- **Liver Disease:**

SAME is one of the most effective treatments known in a variety of liver ailments as those people with chronic liver disease have significantly suppressed SAME levels. In my experience, SAME is only remarkably effective for liver disease when combined with other nutrients such as milk thistle, and recent studies document a profound synergy in both anti-inflammatory, antioxidant and increasing hepatic glutathione synthesis with these nutrients. Think of nutrient supplementation as a symphony, not a solo act.

- **Osteoarthritis:**

Double-blind, placebo-controlled, randomized clinical trials have repeatedly shown that SAME is as good or superior to every drug (NSAID-non-steroidal anti-inflammatory drug) in the treatment of osteoarthritis. In my experience SAME works best combined with the [Basic Nutritional Protocol](#) and 1500mg per day of glucosamine sulfate. It is the treatment of choice for osteoarthritis. SAME has also been shown to stimulate cartilage synthesis and repair, actually treating the underlying disease, not simply treating its symptoms. Furthermore, if we could get everyone to stop all NSAIDs we would save the lives of 30,000- 40,000 Americans every year unnecessarily killed by drugs inferior to a safe, natural supplement.

Dosage: Source Naturals SAME 400mg one to two tabs taken once to twice per day on an empty stomach. Many people get an adequate effect at the lower dosage; cost of this supplement is the most limiting factor.

Conclusion: One of the most versatile supplements we can take, SAME is safe and very effective for a variety of disorders, not just the ones mentioned above. Interestingly, many supposed drug interactions, like those of antidepressant drugs, listed by some “experts” are wholly invalid and represent “ignorance bias” and not science. Having guidance from a knowledgeable healthcare professional, especially if pregnant or lactating, is a must. In the future I hope to find a compounding pharmacy willing to provide SAME for intravenous use as many exciting possibilities exist for this nutrient for patients with the most refractory cases of depression and liver disease.

Your Journey to Health & Healing,  
Gary E. Foresman, MD

#### References:

1. SAME: Natural Medicines Comprehensive Database [www.naturaldatabase.com](http://www.naturaldatabase.com)

2. St. John's Wort and SAME as Natural Alternatives to Conventional Antidepressants. David J Carpenter Pharm D. *Alt Med Review*. 2011; 16(1): 17-39.
3. SAME Augmentation of Serotonin Reuptake Inhibitors for Antidepressant Nonresponders with Major Depressive Disorder: a Double-Blind, Randomized Clinical Trial. Papakostas, GI et al. *AM J Psychiatry* 2010 Aug; 167(8):942-8.
4. Effects of SAME Augmentation of Serotonin-Reuptake Inhibitor Antidepressants on Cognitive Symptoms of Major Depressive Disorder. Leykovitz, Y et al. *J Affect Disord*. 2012 Feb; 136(3): 1174-8.
5. Hepatoprotective Effects of SAME and Silybin on Canine Hepatocytes in vitro. Au, AY et al. *J Anim Physiol*. 2012 Feb 9. Epub
6. Double-Blind Multicentre Study of the Activity of SAME in Hip and Knee Osteoarthritis. Glorioso, S et al. *Int J Clin Pharmacol Res*. 1985; 5(1): 39-49. Yes... 1985!
7. Double-Blind Controlled Clinical Trial of Oral SAME Versus Piroxicam in Knee Osteoarthritis. Maccagno, A et al. *Am J Med*. 1987 Nov 20; 83(5A): 72-7.

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