Glucosamine Sulfate - capsules

Product Narrative, T. S. Fox, Ph.D.

Glucosamine is not a botanical. It is a natural product and is clearly important in the veterinary field.

Chondroitin sulfate is a huge molecule, molecular weight is approximately 50,000. Its bio-availability is near zero, no more than 13% by the most favorable report. Glucosamine bio-availability is 90% to 98%. Chondroitin sulfate is expensive. Glucosamine HCL is moderately effective but is not as bioavailable as glucosamine sulfate and it is more expensive. There is no convincing evidence that MSM is effective. It appears that MSM is a catchy name that has gained a following. N-acetyl-D-glucosamine (NAG) has no advantage over glucosamine. The mixtures of these things are only mixtures of things that are expensive, don't work well and if mixed with glucosamine sulfate make it more expensive and the efficacy of the mixtures is less than that of glucosamine sulfate alone. Glucosamine sulfate is the preferred form and is the least expensive.

Glucosamine is not a complex molecule. C6ONH2(OH)4

It is manufactured in the body and it stimulates the synthesis of glycoaminoglycans (GAG). It also potentiates the incorporation of sulfur into cartilage. This is one of the reasons glucosamine sulfate is the preferred form of glucosamine.

Glucosamine sulfate has a mildly objectionable taste that may be masked with a good tasting carrier such as ground meat.

Glucosamine is contraindicated for patients with diabetes.

## DISCLAIMER

We did not invent the use of botanicals. We do not recommend that the use of botanicals should be undertaken on the strength of our restatement of historical usage and documented research.

We do restate well documented traditional efficacy and the results of ongoing research. Personal experience is included where deemed appropriate.

Regardless of the merits of any botanicals, side effects do sometimes occur. These may be real or imagined. Always seek the counsel and advice of qualified medical professionals and use caution with any botanicals. We do not accept responsibility for the use or misuse of any product put forth or any information provided.

## **NOTES**

- 1. Oral dosages as given are for carnivores by body weight. It is advised to dose low initially and adjust upwards as the circumstances direct.
- 2. Do not scale up dosages for large herbivores by their weight! Large herbivores, such as cattle or horses, usually require approximately twice the dosage of a 200 lb. carnivore.