



VETERINARY  
cancer care

Veterinary Cancer Care, P.C.

2001 Vivigen Way

Santa Fe, NM 87505

www.vetcancercare.com

Phone: (505) 982-4492 Fax: (505) 982-1701 info@vetcancercare.com

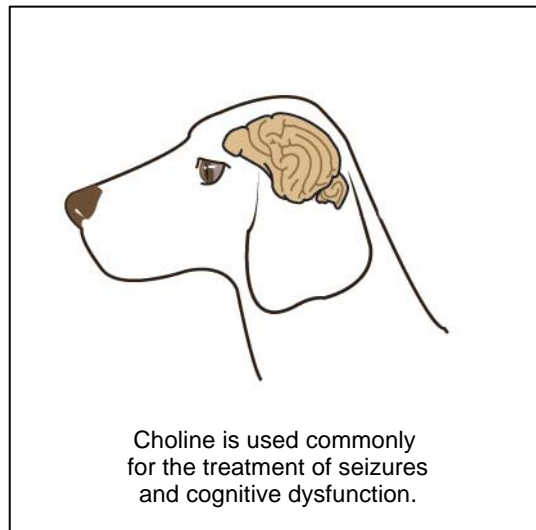
## CHOLINE

### ***What is choline?***

Choline is a vitamin supplement that is present in several forms, including phosphatidylcholine (PC). The medicinal effects of choline are presumed to be caused by phosphatidylcholine. PC is a major part of the membranes surrounding our cells. When PC is eaten, it is broken down into choline rather than being carried directly to the cell membranes. Choline acts like another commonly used supplement, SAME (S-adenosylmethionine), to provide the methyl groups used by the body in a number of chemical reactions, including the detoxification pathways of the liver. It is also used to make acetylcholine and dopamine, nerve chemicals essential for normal brain function. Choline may also aid in brain and liver function by assisting with the absorption of carnitine from the digestive tract. Carnitine is essential for mitochondrial function, ensuring the liver and brain have an adequate supply of energy.

### ***Why recommend administration of choline to my pet?***

Choline is indicated as part of the therapy for dogs and cats with seizures (epilepsy.) Choline appears to be effective in treating small animal cognitive disorders (cognitive dysfunction, “doggy and kitty Alzheimer’s”). Although research studies suggest it is only moderately effective, clinical experience suggests that when used in older pets, it may actually prevent clinical signs of cognitive disorder. Choline may help some pets with urinary incontinence, especially if the incontinence is part of the cognitive disorder syndrome.



### ***How much experience is there with the use of choline in pets?***

Choline supplementation has been shown effective for treating cognitive disorder and seizures in both humans and laboratory animals. Recent studies support its effectiveness in treating cognitive disorders in dogs and cats.

### ***What species of animals are being treated regularly with choline?***

Dogs and cats are treated with choline.

### ***How much research has been conducted on this supplement?***

Choline is one of the better researched supplements for the treatment of disease in dogs and cats. As mentioned, it has been shown effective in recent studies.

### ***How can my pet benefit from choline?***

Pets with mild epilepsy that are treated with choline may not require anti-epileptic medications. Pets with epilepsy that require medications to control their seizures are often able to have their dosages of medications reduced when also treated with choline. Dogs and cats with cognitive disorder respond favorably to treatment with choline. In recent studies, approximately 75% of dogs and cats with cognitive disorders of varying degrees of severity showed improvement when treated with choline. Choline supplementation is safer than conventional drug therapy for seizures and cognitive disorder. There are no approved medications to treat cats with cognitive disorder.

### ***How safe is choline?***

Choline is very safe. Rare side effects include agitation and hyperactivity. These signs usually disappear when choline supplementation is stopped and then restarted at a lower dose.

### ***Where do I obtain choline and do I need a prescription?***

Your veterinarian may have preferred supplements that he or she will recommend. Pet owners are cautioned against buying supplements without knowledge of the manufacturer, as supplements are not highly regulated and some supplements may not contain the labelled amount of ingredients. A prescription is not needed for choline supplements.

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*This client information sheet is based on material written by Steve Marsden, DVM ND MSOM LAc DipICH AHG, Shawn Messonnier, DVM and Cheryl Yuill, DVM, MSc, CVH.  
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