

ProNeurozone®



Complete antioxidant/vitamin formula for senior dogs and cats

Flavored, chewable tablet for dogs

Sprinkle capsule flavored especially for cats

Indications:

For animals displaying behavioral signs of cognitive decline or for other conditions related to oxidative stress and aging.

Main ingredients:

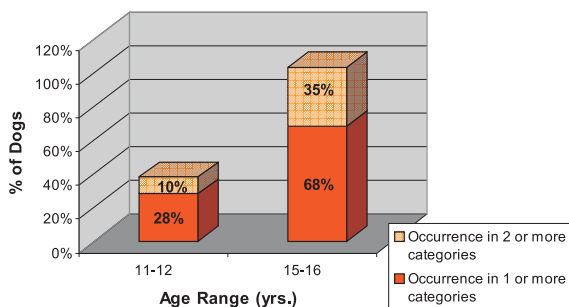
Acetyl-L-Carnitine, Alpha Lipoic Acid (dog formula), Bioflavanol, N-acetyl-Cysteine, Taurine (cat formula), Vitamin E, Thiamine, Riboflavin, Niacin, Vitamin B6, Vitamin B12, Folic Acid, Soy Lecithin (source of phosphatidylserine), Omega-3 Fatty Acids, Cranberry, Bilberry, Sage, Rosemary, Spirulina, liver flavor (dog formula), chicken and garlic flavors (cat formula)

"Many owners are quite willing to do what they can for a 14 or 15-year-old dog, but if they knew they could intervene early on and prolong the life span of their pet, even more pet owners would be willing to do that. Antioxidant therapy is probably going to be number one for ease of delivery and increased owner compliance."

— D. Horwitz, DVM, DACVB

ProNeurozone® provides cognitive function support and may delay the development of age-related brain damage and memory loss. Antioxidant supplementation may benefit brain health and complement the management of established cases of cognitive dysfunction. Ingredients such as acetyl-L-carnitine, lecithin, bioflavanol (grape seed extract) and bilberry extract efficiently cross the blood-brain barrier, which may increase the overall effectiveness of the formula. Research suggests that the simultaneous activities of such compounds are more beneficial than that of each on its own.

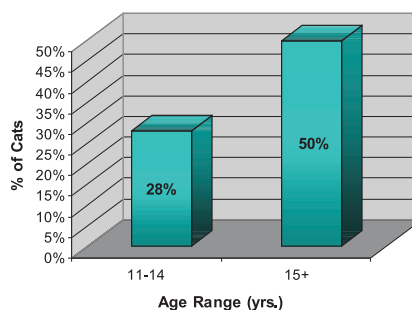
Occurrence of age-related behavioral changes



The percentage of older dogs in two age ranges exhibiting age-related behavioral impairment. The changes could occur in 4 categories: orientation, social interaction, house training, and sleep-wake cycle. The increase of occurrences with age is illustrated.

Reference: Neilson JC, Hart BL, Cliff KD, Ruehl WW. *Prevalence of behavioral changes associated with age-related cognitive impairment in dogs.* Journal of the American Veterinary Medical Association. 2001 Jun 1;218(11):1787-91.

Prevalence of feline behavioral changes in two age groups



The percentage of older cats in two age ranges demonstrating clinical signs of cognitive dysfunction syndrome. Changes in social interaction were most commonly reported in cats aged 11-14 years. In cats aged 15 or more years, an altered sleep-wake cycle (e.g. nighttime vocalization) was the most common sign. The increase in prevalence with the older population is illustrated.

Reference: Moffat K, Landsberg G. *An investigation of the prevalence of clinical signs of cognitive dysfunction syndrome (CDS) in cats.* Proceedings of the American College of Veterinary Behaviorists. July 2003.

"The transformation that we have seen in Dolly has been nothing short of miraculous. When we started the program, Dolly had become withdrawn from day to day life. We had to coax her to eat or to go outside. Dolly was no longer interested in playing with the other dogs or accompanying me outside to work in the yard. My assumption at the time was that Dolly was becoming senile, and was nearing the end of her life. Not unusual, I thought, for a 12-year old dog.

Within four weeks of starting ProNeurozone, Dolly was interested in eating again. She became part of the family again, rather than shuffling off to a quiet place to sleep. Today, Dolly acts like she did when she was five or six years old. She barks when I start preparing her dinner, and she's back to doing the Shepherd circles that are so common in Shelties. We are absolutely astonished at the changes we have seen."

— Scott Baker, Colorado

Sample of Dolly's behavior evaluation

Key: 0 = none, 1 = mild, 2 = moderate, 3 = severe

Date: Initial 30Days 60Days 18Mos.
6/1/04 7/6/04 8/9/04 12/8/05

D	Disorientation, awareness	Gets lost in familiar locations	2	1	1	0
		Goes to wrong side of door (e.g. hinge side)	2	1	0	0
		Is less responsive to stimuli	3	1	0	0
I	Interaction	Decreased greeting behavior	1	0	0	0
		Alterations or problems with social hierarchy	1	1	0	0
S	Sleep-wake cycle	Increased daytime sleep	3	2	2	1
H	House-soiling, learning & memory	Indoor elimination at random sites / in view of owners	1	0	0	0
		Impaired working ability	3	2	1	1
		Decreased ability to perform tasks	3	2	1	1
A	Activity: decreased or repetitive	Pacing or aimless wandering	3	1	0	0
		Decreased exploration or activity: apathy	3	2	1	1
		Appetite decrease or disinterest	2	1	0	0

Q: What is the blood-brain barrier?

A: The blood-brain barrier (BBB) is a specialized system of capillary cells that determine which substances in the blood stream may pass into the brain. The BBB protects the brain from harmful substances. However, this barrier also presents a rate-limiting factor for the passing through of therapeutic drugs and beneficial nutrients into the brain.

Q: How does aging affect the canine brain?

A: Age-related changes that occur in the canine brain can result in cell death or damage, reduced chemical signaling, and increased oxidative damage. The overall effect is deterioration of a dog's cognitive functioning - any mental activity related to thinking, memory, learning, or perception.

Q: What are the behavioral signs of cognitive decline?

A: According to 48% of owners, dogs that are 8-years of age or older display at least one sign of cognitive dysfunction. Behavioral changes associated with age-related cognitive decline include:

- regressions in house training, orientation, and social interaction
- changes in sleeping and eating patterns
- fear or anxiety not previously exhibited
- increased or repetitive activity or vocalization
- decreased responsiveness to known commands and activities