



# CAPTEX<sup>®</sup> MEDIUM-CHAIN TRIGLYCERIDES FOR COGNITION



# Cognition



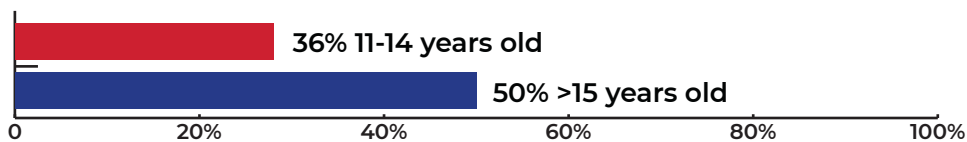
**COGNITION**, is a complex notion that includes







- learning and memory
- language
- attention
- motor skills
- executive function
- spatial abilities

These functions are integral parts of an animal's cognitive process and the improvements in nutrition and veterinary medicine have allowed our companion animals to live longer. Cognitive dysfunction syndrome is used to describe the progressive cognitive decrease that is characterized by a gradual decline in learning, memory, perception, and awareness in animals.<sup>1,2</sup> Using protocols that are designed to assess different cognitive areas, it has been shown that cognitive decline can start as early as 6 years in dogs and in cats, age-related cognitive impairments are noted before the clinical signs of cognitive decline.<sup>2,3</sup> This may suggest a link between cognitive impairment and behavioral changes.<sup>3</sup>

## Feline Cognitive Decline

### Cats With At Least One Sign Of Cognitive Decline <sup>3</sup>.



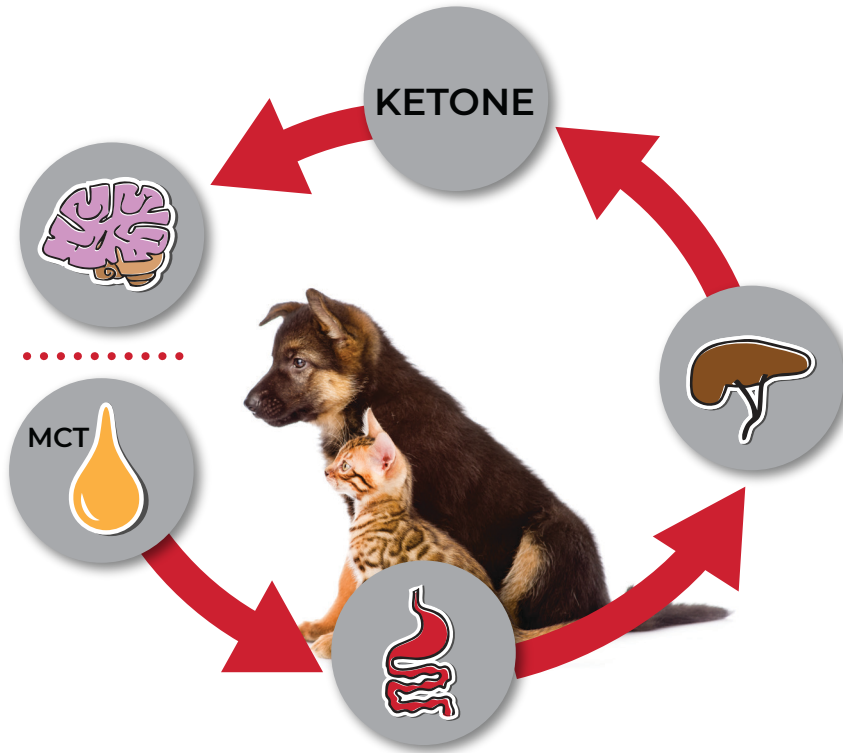
- |   |   |
|---|---|
|  Increased confusion                                 | Meows at night for no reason                 |
|  Alterations in sleep-wake cycle                     | Alterations in activity - aimless wandering  |
|  Decreased interaction with humans and other animals | Loss of litterbox habits                     |

1. G. Landsberg. Therapeutic agents for the treatment of cognitive dysfunction syndrome in senior dogs. *Prog NeuroPsychopharmacology Biol Psychiatry* (2005) 29:471-9. Abstract only: PMID: 15795056
2. G. M. Landsberg, J. Nichol, J. A. Araujo. Cognitive Dysfunction Syndrome: A Disease of Canine and Feline Brain Aging. *Vet Clin Small Anim* (2012) 42:749-68. Abstract only: PMID: 22720812

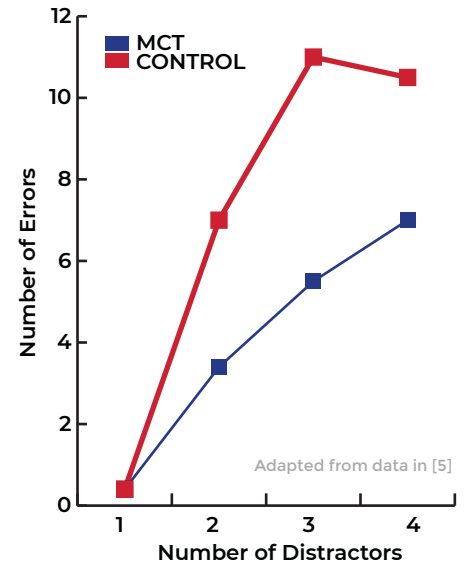


# Medium Chain Triglycerides

MCTs are fats composed of fatty acids of 8-10 carbons. These triglycerides are easily digested into fatty acids that are freely absorbed from the intestine into the portal vein for direct access to the liver. In the liver, MCTs are quickly metabolized into ketones that are able to be used as an alternate energy source by the brain.



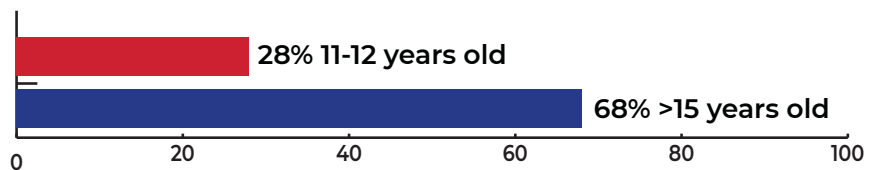
## MCTs IN DOGS <sup>5</sup>



Dogs fed MCTs performed less errors even with a higher number of distractors as compared to control dogs

## Canine Cognitive Decline

Dogs With At Least One Sign Of Cognitive Decline <sup>3</sup>.



Increased confusion

Barks at night for no reason



Alterations in sleep-wake cycle

Loss of recognition of familiar people



Decreased interaction with humans and other animals

Loss of housetraining



1. D. Gunn-Moore, K. Moffat, L.-A. Christie, E. Head. Cognitive dysfunction and the neurobiology of aging in cats. *J Small Anim Pract* (2007) 48:546-553. PDF PMID: 17617164
2. Y. Pan, B. Larson, J. A. Araujo, W. Lau, C. de Rivera, R. Santana, A. Gore, N. W. Milgram. Dietary supplementation with medium-chain TAG has long-lasting cognition-enhancing effects in aged dogs. *Br J Nutr* (2010) 103:1746-54.





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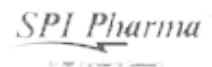
Larodan, located in the Karolinska Institute in Stockholm Sweden, develops, manufactures and markets a comprehensive range of high purity lipids for the international market. Serving numerous research and pharmaceutical markets, Larodan's aim is to be an optimal partner for lipid-related research and product development needs.

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