

**Brain & Cognitive Disorders**

CANINE COGNITIVE DYSFUNCTION SYNDROME: PRESERVING QUALITY OF LIFE FOR OWNERS AND SENIOR DOGS



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Q. Canine cognitive dysfunction syndrome (CDS) is believed to be significantly underdiagnosed.¹ Why does it often go unrecognized?

- A.** No two dogs with CDS present exactly the same way. The range of behavioral signs include **disorientation**, decreased **interaction** with family members, disturbances in the **sleep** cycle, loss of **housetraining**, changes in **activity** and increased **anxiety**.

I find that owners of older dogs are often less likely to report signs such as decreased activity and interactivity to veterinarians because they associate these changes with aging and don't necessarily find them disturbing. On the other hand, if the dog begins having accidents in the house, displays compulsive or repetitive behaviors, or has severe night wakefulness, owners may quickly become motivated to seek help.

Q. What is your protocol for managing dogs with CDS?

- A.** I tell owners my ultimate goal is to keep their pets behaviorally stable for as long as possible. When formulating a management plan, I consider the following:

- **Medication.** If a dog has an altered sleep/wake cycle, addressing it is paramount because of the high likelihood that the owner's sleep is also disrupted — and owners who aren't sleeping well have difficulty making decisions about their pets' care. Administering a nighttime combination of trazodone, a benzodiazepine and melatonin will usually get dogs sleeping through the night within a matter of days; this, in turn, may allow dogs to be more alert during the day. I also consider medications such as selegiline for dogs whose clinical signs warrant it. However, it's important to note that this drug is an MAO inhibitor, which can be complicated to prescribe with other medications the pet may be taking. For example, trazodone and selegiline may increase the risk of serotonin syndrome. For dogs on selegiline, we might limit the nighttime regimen to a benzodiazepine and melatonin.
- **Dietary management.** My next step is to start the dog on a therapeutic diet. I look for neuroprotective ingredients such as antioxidants and omega-3 fatty acids, as well as medium-chain triglyceride (MCT) oil to provide both nutritional and energy support.

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- **Environmental management.** Anxiety and restlessness are common in dogs with CDS, so I advise utilizing positive reinforcement to train the dog to lie down on a designated resting spot. Over time, this can become a safe place where the dog can be calm and relaxed. I also remind clients that dogs with CDS need predictability and routine because they don't handle change well. I tell owners that if they get a new chair in the living room or a new bed for the dog to be sure to keep the old one around, too.

Q. With many medical conditions, early diagnosis and intervention are key to implementing effective therapy. Is that also the case with CDS?

A. While there is much we still need to learn about brain aging in dogs, studies have shown that changes in cognitive function can begin to occur when dogs are middle aged.² In my own clinical experience, I have come to suspect that CDS may be a factor when dogs this age develop a new onset of anxiety or have anxiety that is significantly worsening.

Because of the importance of maintaining neural function, I recommend proactively switching dogs at age 7 to a diet that supports cognitive health when possible. My philosophy is that owners of older dogs are going to buy food anyway—why not feed a diet that feeds the brain?

References

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2. Studzinski CM, Christie LA, Araujo JA, Burnham WM, Head E, Cotman CW, Milgram NW. Visuospatial function in the beagle dog: an early marker of cognitive decline in a model of human aging and dementia. *Neurobiol Learn Mem.* 2006 Sep;86(2):197–204.

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