How to Recognize Early Signs of Cognitive Decline

Much like humans, many cats and dogs experience declining mental ability as they age. However, it often goes unnoticed until the condition becomes so advanced that there's little you can do to slow its further progression.

Reviewed by Dr. Becker

STORY AT-A-GLANCE

- Older dogs and cats can and do develop cognitive dysfunction syndrome (CDS)
- Early diagnosis and intervention is crucial in slowing progress of the disease and improving cognition in aging pets
- CDS is evident in about 50% of dogs over the age of 11, and nearly 70% of dogs at age 15
- Feline cognitive dysfunction syndrome is primarily seen in kitties over the age of 11
- There are five important areas in which parents of older pets can help forestall the onset and progression of CDS. These include the right diet, appropriate supplementation, exercising their pet, foregoing vaccines and scheduling twice-yearly wellness exams with their veterinarian

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Just like their owners, dogs and cats can develop degenerative brain diseases known as canine or feline cognitive dysfunction syndrome (CDS). But sadly, the signs of mental decline in a pet often go unnoticed until the condition is so advanced there's little that can be done to slow its progression.

Even your veterinarian may be unaware there's a problem because he or she doesn't see your pet very often and only in a clinical setting versus at home. In addition, many vets aren't aware of just how common CDS is. They count on pet parents to tell them when an older dog or cat is experiencing behavior changes, while owners assume the changes are just a natural part of aging.

In a large-scale 2011 Australian study of dogs, researchers reported that about 14% develop CDS, but less than 2% are diagnosed.[1] In addition, the risk of CDS increases with age. Estimates are that 40% of dogs at 15 will have at least one symptom. Researchers also estimate the prevalence of cognitive dysfunction in geriatric dogs at 68%.

In a study also published in 2011 involving CDS in cats, researchers estimated that a third of all cats between 11 and 14 years of age have age-related cognitive decline. That number increases to 50% for cats 15 years and older.[2]

The Importance of Early Intervention

Dr. Jeff Nichol, a veterinary behavior specialist practicing in Albuquerque, NM, and co-author of a paper on cognitive dysfunction syndrome, tells the story of a 14-year-old Lhasa Apso mix who showed no signs of mental decline until he experienced a series of life stressors.[3]

First, the dog's owner was hospitalized and a dog sitter stepped in to care for him. Then another dog in the family died. The Lhasa became more needy and began experiencing sensory issues, including what appeared to be deafness. Nichol took immediate steps to forestall the Lhasa's mental decline, and viewed the stressful events as unfortunate, but timely.

While CDS is incurable, there are ways to slow the progression of disease, and even see improvement in the pet. "This dog has improved pretty significantly, and at this point it's going on over a year now and he's continuing to do better," Nichol told Veterinary Practice News. "[CDS] appears not to be advancing."[4]

He encourages veterinarians to complete some form of the questionnaire for all clients with pets age 7 or older to assess cases of cognitive decline as early as possible.

5 Signs of Cognitive Dysfunction Syndrome in Dogs

Signs of CDS are seen in about half of dogs over the age of 11. By the age of 15, almost 70% of dogs have at least one sign of an aging brain.

Because large and giant breed dogs age more quickly than smaller breeds, dogs as young as 6 can begin to experience mental decline. If your dog is around that age, is a large or giant breed and is showing one or more symptoms of CDS, don't rule out an age-related problem. There are five classic signs of cognitive decline in dogs:

1. Increased total amount of sleep during a 24-hour period
2. Decreased attention to surroundings, disinterest, apathy
3. Decreased purposeful activity
4. Loss of formerly acquired knowledge, which includes housetraining
5. Intermittent anxiety expressed through apprehension, panting, moaning or shivering

Other symptoms include failure to respond to commands and/or difficulty hearing, inability to recognize familiar people and difficulty navigating the environment. Additional physical manifestations of CDS can include excessive licking, lack of grooming, fecal and urinary incontinence and loss of appetite.

Assessing Cognitive Decline in Cats

Four very common behavioral changes owners of elderly cats often report include:

1. Excessive vocalization, especially at night
2. Appearing confused as to where they are and why (staring off into space)
3. **Eliminating outside the litterbox**

4. Loss of interest in interacting with human family members

Cats who develop CDS are typically 11 years or older. Many veterinarians and feline experts use the acronym **DISH** to measure cognitive dysfunction in cats:

D = **d**isorientation. Kitties with CDS may wander aimlessly, stare at walls and appear lost or confused at times. They may also intermittently fail to recognize family members.

I = reduced social **i**nteractions. A cat with CDS may seem confused when his guardian arrives home at the end of the day. He may also show less interest in being petted or sitting in his owner's lap.

S = changes in **s**leep patterns. An affected cat may sleep more during the day but turn into an insomniac at bedtime, wandering the house and often crying out for no obvious reason.

H = **h**ouse soiling/**h**ousetraining. Cats with CDS frequently lose their housetraining skills. This happens because they either forget the location of the litterbox, or they are no longer terribly concerned about their own cleanliness or perhaps a bit of both.

5 Ways to Help Your Dog or Cat Stay Mentally Sharp

Studies show mental decline can be improved by offering an antioxidant-fortified diet, plus a program of cognitive and environmental enrichment, plus extra exercise. Fortunately, there are many things you can do to help your aging canine or feline companion maintain good cognitive health for as long as possible, and delay the onset and progression of cognitive dysfunction.

1. **Diet —** Feed a species-appropriate, balanced diet rich in healthy fats, including omega-3 fatty acids such as krill oil. Krill oil and other healthy fats, including MCT oil, are very important for cognitive health.

   The perfect fuel for an aging dog or cat is a variety of living, whole foods suitable for a carnivore. Eliminate all refined carbohydrates, which are just unnecessary sugar. No grains, potatoes or legumes. Replace those unnecessary carbs with extra high-quality protein. Eliminate extruded diets (kibble) to avoid the toxic byproducts of the manufacturing process.

   Most pet foods are manufactured in a way that creates byproducts that can affect cognitive health, including heterocyclic amines, acrylamides and advanced glycation end products, or AGEs. Fresh, biologically appropriate foods provide the whole food nutrients an aging brain requires.

   The right diet will also enhance the microbiome, which has been linked to improved cognitive health in humans and pets.
2. **Supplements —** Nutraceuticals can significantly improve memory, and the effects are long-lasting. Studies of medium-chain triglycerides (MCTs) such as coconut oil show they can significantly improve cognitive function in older pets.

   MCTs provide an alternative energy source for the brain in the form of ketone bodies versus glucose, which can dramatically improve brain metabolism and cellular energy within the central nervous system. Supplementing with MCTs is a great way to offer an instant fuel source for your pet's brain.

Ketone bodies cross the blood brain barrier to efficiently nourish aging brains. Feed 1/4 teaspoon per every 10 pounds of your pet's body weight, added daily to his food. Your pet's brain is about 60% fat, and that fat needs to be appropriately fueled as he ages.

Consider providing a source of SAMe (S-adenosylmethionine). Other supplements to consider are jellyfish extracts and resveratrol, which is Japanese knotweed. Japanese knotweed has been proven to help reduce free radical damage and beta-amyloid deposits.

Ginkgo biloba may improve blood flow to the brain. Phosphatidylserine and ubiquinol, which is the reduced form of CoQ10, feeds your pet's mitochondria and improves cellular energy.

3. **Vaccines —** Just say no. Over-vaccinating is something older animals do not need. You can replace the vaccines with titers. A titer is a blood test that measures protective immunity. Chances are your pet is very well protected. Switch to titering to help reduce her toxic load.
4. **Exercise —** Keep your pet's body and mind active with regular exercise appropriate for her age and physical condition, and mental stimulation (puzzles and treat-release toys can be beneficial). Provide dogs with regular opportunities to socialize with other pets and people. Cat parents should set aside time each day to play with and exercise their pet.

   Also keep your furry companion at a healthy size. Overweight pets are at significantly higher risk for developing age-related diseases.
5. **Senior wellness exams —** Twice-yearly veterinary visits are ideal for pets no matter the age, but this becomes even more important for dogs and cats who are getting up in years. Keeping abreast of your animal companion's physical and mental changes as he ages is the best way to catch any disease process early. Ask your vet to perform a blood test to check your pet's internal organ health to make sure you're identifying possible issues early on.

   When your pet begins to respond to therapy designed to improve cognitive function, if necessary, you can begin re-training him using the same techniques you used when he was a puppy or kitten — positive reinforcement behavior training involving lots of treats and praise.

Unfortunately, these recommendations won't be tremendously helpful for an animal already in the advanced stages of cognitive decline, which is why it's so important to diagnose and begin treating the problem as early as possible. Cognitive dysfunction is a progressive disease that can't be cured, but early diagnosis and intervention can slow mental decline and offer your aging pet good quality of life.

Sources and References

[1] Vet J. 2011 Jun;188(3):331-6

[2] Top Companion Anim Med. 2011 Feb;26(1):17-24

[3, 4] Veterinary Practice News, August 31, 2016