

How to Spare Your Older Dog the Agony of Mental Decline

Older dogs can suffer from cognitive decline similar to human dementia and Alzheimer's. Here's how you can spare both you and your dog that stress and distress. There's a lot you can do to keep decline under control, including these eight ways to keep your dog mentally sharp for life.

Reviewed by [Dr. Becker](#)

STORY AT-A-GLANCE

- Older dogs can show symptoms of cognitive decline similar to those seen in human dementia and Alzheimer's disease
- Dogs experiencing age-related mental decline develop difficulties in the areas of learning and memory. However, dogs with cognitive dysfunction syndrome, which is a different disorder, display a specific set of symptoms, some of which aren't related to cognition
- Multiple studies of aging Beagles show that a combination of dietary supplementation and behavioral enrichment can improve age-related cognitive decline
- There are many things owners of older dogs can do to maintain or improve cognitive function in their pet
- Schedule twice yearly vet visits and keep up with your pet's conditions as they age will help you catch the signs of cognitive decline

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If you share your life with a canine companion who's getting up in years, you might already be aware that aging dogs can suffer symptoms very similar to those seen in human dementia and Alzheimer's patients.

According to Bill Milgram, Ph.D., cofounder of CanCog Technologies in Toronto, and co-author of numerous studies on canine cognition:

“Most dramatically, older dogs lose their ability to learn, and the more difficult the task, the greater the impairment. The ability to learn a complex problem deteriorates in dogs before they lose their ability to remember.

These changes may not be readily apparent to pet owners or veterinarians, who may simply see signs of confusion and forgetfulness.”¹

One sign your dog is slipping mentally is a decrease in “executive function,” which includes decision-making, planning, and organizing behavior. One of the tests to check for this type of cognitive decline is called “reversal learning.”

In reversal learning, a dog is first trained to respond to one object and avoid another. Once the dog is consistently responding correctly, the rules are changed. When the first response is no longer the correct response, the dog has to decide to respond differently. Older dogs learn this task at a slower rate than young dogs.

Other Ways Your Dog May Show Signs of Mental Decline

Older dogs also show declines in the following areas:^{2,3}

- Complex discrimination learning, which encompasses a wide range of different types of learning, such as perceptual learning, concept learning, and language learning
- Allocentric spatial function, which is the ability to understand the location of one object or its parts with respect to other objects
- Visuospatial learning, which pertains to a dog's ability to understand visual representations and their spatial relationships
- Higher-order cognitive abilities include critical, logical, reflective, metacognitive, and creative thinking, and they are activated when a dog encounters unfamiliar problems, uncertainties, questions, or dilemmas
- Performance of behavioral tasks, which also take longer to learn, and for which there is reduced memory capacity
- Memory

Veterinarians use a variety of behavioral and neuropsychological tests similar to those used with primates and humans, to identify whether a dog is experiencing cognitive decline.

Cognitive Dysfunction Syndrome

Some dogs develop an aging disorder called canine cognitive dysfunction syndrome (CDS) that produces a specific set of behaviors. These include:

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

According to Dr. Milgram:

“CDS is different from the type of cognitive-neurophysiological testing that we've done, looking at cognitive decline in dogs. They're not the same thing. Canine CDS encompasses a range of different functions, not all of which are aspects of cognition.

For example, decreased behavioral activity is considered to be a sign of CDS. While activity generally does decrease with age, some of our cognitively impaired animals actually become more active, yet they are showing other signs of cognitive impairment. That's one example of how the two conditions would differ.”⁴

Studies Measure the Impact of Dietary Supplements on Aging Dogs

A research study of 48 Beagles between the ages of 9 and 12 used supplemental antioxidants and mitochondrial cofactors, plus behavioral enrichment, to evaluate their effect on the dogs' cognitive impairment. The researchers theorized that dietary supplementation might help fight free radicals and the effect of oxidative stress on the brain.⁵

The researchers concluded that age-related mental decline in dogs can be improved by offering an antioxidant-fortified diet or a program of behavioral enrichment that includes cognitive and environmental enrichment, plus extra exercise. A combination of the two is more effective than either supplementation or behavioral enrichment alone.

Another study measured the effects of a nutraceutical on nine older Beagles. The supplement contained phosphatidylserine, ginkgo biloba extract, pyridoxine, and d-alpha-tocopherol acetate (natural vitamin E). The results showed that:

“Performance accuracy was significantly improved in supplemented dogs compared with control dogs and the effect was long lasting. These findings suggest that the nutraceutical supplement can improve memory in aged dogs.”⁶

In a third study of aged Beagles, dietary supplementation with medium chain triglycerides (MCTs) was evaluated over an eight-month period. The researchers concluded that long-term supplementation with MCTs can significantly improve cognitive function in older dogs, probably because MCTs provide an alternative energy source to the brain in the form of ketones vs. glucose.

Antioxidants Aren't a 'Magic Bullet'

Dr. Milgram believes the studies he and other researchers have performed in the area of canine cognition show that while antioxidants may be beneficial, they aren't a “cure” for aging.

“Alone, antioxidants did not have a big impact,” says Milgram, “but when dogs had both antioxidants and behavioral enrichment, they did better. I think supplementation of diet high in antioxidants should be done, but don't expect it to be a magic bullet,” he concludes.⁷

How to Help Your Older Dog Stay Mentally Sharp

While your pet isn't getting any younger, fortunately there are many things you can do to help maintain good mental function for as long as possible, and delay the onset and progression of cognitive decline:

- The foundation for good health and vitality for pets of any age is a nutritionally balanced species-appropriate diet made from whole, raw, organic, non-GMO ingredients suitable for your carnivorous dog. Your pet's diet should also include an abundance of omega-3 essential fats, such as krill oil, which are critical for cognitive health.
- Keep your dog's body and mind active with regular exercise appropriate for his age and physical condition, and mental stimulation (puzzles and treat-release toys can be beneficial). Make sure he has opportunities to socialize with other pets and people.
- Provide your pet with a SAME (S-adenosylmethionine) supplement as a safe and effective way to stall or improve mental decline. Consult a holistic veterinarian for the right dose. There are also commercial cognitive

support products available.

- As one of the Beagle studies points out, medium-chain triglycerides (MCTs) have been shown to improve brain energy metabolism and decrease the amyloid protein buildup that results in brain lesions in older pets. Coconut oil is a rich source of MCTs. A good rule of thumb is 1/4 teaspoon for every 10 pounds of body weight twice daily for basic MCT support.
- Other supplements to consider (some of which were also used in the Beagle studies), are resveratrol (Japanese knotweed), which protects against free radical damage and beta-amyloid deposits, ginkgo biloba, gotu kola, and phosphatidylserine — a nutritional supplement that can inhibit age-related cognitive deficits. Again, you should consult your holistic veterinarian for dosing guidance.
- Keep your dog at a healthy size — overweight pets are at significant increased risk for disease as they age.
- Maintain your pet's dental health.
- Schedule twice-yearly vet visits for your pets no matter the age, but this becomes even more important for animals getting up in years. Keeping abreast of your dog's physical and mental changes as she ages is the best way to catch any disease process early. Ask your vet to perform a blood test to check your dog's internal organ health to make sure you are identifying possible issues early on.

When your dog 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 — positive reinforcement behavior training involving lots of treats and praise.

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 [ZoomInfo, Bill Milgram](#)

² [Behavioral Neuroscience, Vol 116\(3\), June 2002, Pages 443-454 \(Archived\)](#)

^{3,5} [Exp Gerontol. 2004 May;39\(5\):753-65](#)

^{4,7} [dvm360, October 1, 2024 \(Archived\)](#)

⁶ [Can Vet J. 2008 Apr;49\(4\):379-85.](#)
