

Protecting Your Aging Pup's Brain From Dementia

The risk for doggy dementia increases 52% with each passing year, and the risk is higher in certain groups of dogs. Taking action now with these dietary and supplement changes and taking these steps to increase physical activity and mental stimulation can help safeguard your pet's brain.

Analysis by Dr. Karen Shaw Becker

STORY AT-A-GLANCE

- The risk of canine cognitive dysfunction (CCD) increases 52% with each year of age, though the condition is rare among dogs under 10 years
- The risk of CCD was also 6.47 times higher in inactive dogs compared to those who were very active
- Signs of cognitive decline in dogs include disorientation, house soiling, activity changes, abnormal aggression and disrupted sleep
- A species-specific (low carb), minimally processed nutritionally balanced diet rich in healthy fats is very important for cognitive health in dogs
- For dogs with CCD, I recommend 1/4 teaspoon of coconut oil for every 10 pounds of body weight daily, along with a source of methyl donors, such as SAMe

Data from more than 15,000 dogs revealed that the risk of canine cognitive dysfunction (CCD) increases 52% with each year of age.¹ CCD is a form of cognitive decline in dogs that shares similarities with Alzheimer's disease in humans, including increased risk with advancing age.

The study found the condition was rare among dogs under 10 years and also shed light on lifestyle factors that may help prevent it — findings that could even help with human dementia:²

"Given increasing evidence of the parallels between canine and human cognitive disease, accurate CCD diagnosis in dogs may provide researchers with more suitable animal models in which to study aging in human populations."

Age, Lack of Exercise Linked to Canine Dementia

Age was a major risk factor for CCD in dogs, but it wasn't the only one revealed in the study. **Physical activity** was another major variable. Among dogs of the same age, health status and breed, the risk of CCD was 6.47 times higher in inactive dogs compared to those who were very active.

"One lesson that already stems from the current study is further proof that physical activity, also in older people, is very important for the wellbeing and for keeping [the] aging brain healthy," Gregor Majdič, professor of physiology at the veterinary school at University of Ljubljana, told The Guardian.³

Regular exercise is also linked to a reduced risk of Alzheimer's in humans, which "may reflect a variety of biologic mechanisms, including a reduction of pro-inflammatory cytokines in the brain that otherwise contribute to neural damage and death, and an increase in neural plasticity," the researchers explained, adding that these same mechanisms could also be at play in dogs.⁴

It's also possible, they noted, that dogs' cognitive health benefits from the increased interactions with their owners that occur during exercise such as walks or playtime.

"An inverse association was seen in dogs whose owners indicated higher dog activity levels over the past year. Previous studies with rodent models have demonstrated that exercise can have protective effects against the development of biological markers and subsequent behavioral deficits characteristic of AD [Alzheimer's disease], and numerous observational human studies have consistently shown inverse associations between exercise and AD," the researchers noted.⁵ Dogs with a history of neurological, eye or **ear disorders** also had an increased risk of CCD.

Common Signs of Canine Dementia

It's estimated that 28% of 11- to 12-year-old dogs and 68% of 15- to 16-year-old dogs have CCD.⁶ So, if you have a senior pup, be on the lookout for the sometimes-subtle signs of cognitive decline. The acronym DISHAL, which stands for the following, may help:⁷

1. **Disorientation**, including staring at walls or floors or getting stuck in odd places, like behind furniture
2. **Interactions**, especially those that are abnormal, such as aggression, irritability or changes in frequency of social interactions with familiar family members and pets
3. **Sleep-wake cycle changes**, including sleeping more during the day or difficulty sleeping at night; changes in sleep-wake cycle are often among the earliest signs of CCDS
4. **House soiling**, such as urinating inside the house right after they were let outside or not letting you know when they need to go out
5. **Activity changes**, which may include decreased activity or increased repetitive activities like walking in circles. Anxiety may make activity changes worse
6. **Learning difficulties/memory loss**, such as having difficulty performing tasks they once knew or learning new tricks

Pay close attention to disrupted sleep, as dogs with CCD may have difficulty sleeping, pace or vocalize at night and may sleep more during the daytime.⁸ In one study of 28 dogs between the ages of 10 and 16, electroencephalography, or EEGs, were used to record the dogs' brain activity during a two-hour nap. The tests revealed that dogs with higher dementia scores and worse performance on a problem-solving task spent less time in NREM and REM sleep.

How to Protect Your Aging Pup's Brain

While risk of CCD may increase as your dog gets older, it's certainly not guaranteed to occur — especially if you take steps to support his brain health and **slow doggy dementia**.

Along with physical activity and maintaining healthy weight and blood glucose levels, a species-specific (low carb), minimally processed nutritionally balanced diet rich in healthy fats, including omega-3 fatty acids (sustainably sourced, purity tested DHA and EPA) and healthy functional fats that nourish the brain, such as MCT oil, is very important for cognitive health. **Lifelong mental stimulation**, including sniffing and **nose work**, learning new tricks and socializing with other animals and people, is another important aspect of brain health in dogs, just as it is in humans.

Scheduling a senior pet wellness screen for your dog is also highly recommended to detect early changes in your dog's health so that treatment, including appropriate lifestyle changes, can begin immediately. While there's no known cure for CCD, it probably won't affect your dog's lifespan; dogs that have it tend to live just as long as dogs experiencing healthy aging.

Supportive care, including maintaining a regular routine to minimize stress, is therefore crucial. I recommend working with an integrative veterinarian who can help guide you.

For dogs with CCD, I recommend 1/4 teaspoon of coconut oil for every 10 pounds of body weight, added daily to food, along with a source of methyl donors, such as SAME (S-adenosylmethionine), which can assist in detoxification and reduce inflammation. Other supplements to consider include:

- Lion's Mane mushroom
- Glutathione
- Resveratrol (knotweed)
- Ginkgo biloba
- Phosphatidylserine
- Huperzine A
- Pterostilbene
- Pyrroloquinoline quinone (PQQ)
- Bacopa monnieri

Sources and References

^{1,2,4,5} [Scientific Reports volume 12, Article number: 13316 \(2022\).](#)

³ [The Guardian August 25, 2022](#)

^{6,7} [Texas A&M University, Veterinary Medicine & Biomedical Sciences April 15, 2021](#)

⁸ [Front. Vet. Sci., 28 April 2023](#)

⁹ [J Vet Intern Med. 2015 Nov-Dec; 29\(6\): 1569–1577](#)
