

CANINE COGNITIVE DYSFUNCTION SYNDROME



Canine Cognitive Dysfunction Syndrome, CCDS, is the equivalent of Alzheimer's disease in people. Cognitively impaired patients may have changes in many neurotransmitter levels, including serotonin, gamma-aminobutyric acid (GABA), norepinephrine, dopamine and acetylcholine. These changes can affect mood, posture, normal movement, memory, appetite and sleep.

Cognitive changes are common in dogs over the age of ten. The early signs are subtle and often progress gradually. They may be mistaken for normal signs of aging but when dog owners are asked about specific changes they report seeing symptoms. Physical and behavioral signs include:

- Disorientation or confusion
- Interaction changes – seeking attention more or less, or in a different way
- Sleep-wake cycle alterations, especially wandering the house crying at night
- House-soiling
- Activity changes
- Anxiety and decreased ability to adapt to stress and change
- Learning or memory changes

Chronic pain is common in senior pets, and plays a role in many CCD cases. Arthritis, dental pain, chronic cystitis (bladder inflammation) and neurologic pain are all frequently seen problems. Pain medication is often the first treatment we try. Once pain is managed we can reevaluate the symptoms that remain and address those.

There are other health problems of older dogs that can also profoundly influence behavior and cognition. Hypothyroidism, high blood pressure, kidney or liver disease and urinary tract infections are the most common. Since we rarely have an MRI to look at the brain and there are no chemical marker tests for it, CCD is a diagnosis of exclusion – we rule out or treat all these other problems first.

Treatment, beyond pain medication and addressing other diseases the dog may have, may involve dietary modification and supplements, cognitive function support medications, antianxiety medications and environmental enrichment. Social interaction, mental stimulation (playtime) and physical exercise are important for older pets, just as they are for older humans. I think we sometimes forget to play with our older pets, yet even an elderly dog may still want to chase a ball, hang out on the deck in the sun or go for short sniffing walks, even when they can't go as far or as fast as they used to. Novelty improves brain function, so do something new and different – walk a different route, go to a different park, bring things in the house to sniff and smell, play a

different game. Dogs who get enrichment activities regularly maintain better brain function as they age.

There is only one medication on the market that is FDA approved for treating cognitive dysfunction in dogs, called Anipryl. When given in the morning, it can be particularly useful for regulating disrupted sleep patterns. It's pricey, however, and side effects can include vomiting, diarrhea, restlessness and anorexia. We usually try other medications and supplements first.

- Purina Neurocare and Hill's B/D are prescription diets made to improve cognitive function. These diets can make a huge difference when treating cognitive dysfunction or seizures.
- SAM-e is a nutritional supplement that scavenges free radical compounds that can damage cells and it improves cell membrane function. SAM-e works best in the early stages of CCD. Buy it from us, testing has shown that most over-the-counter brands are poor; many contain no SAM-e at all.
- Senilife is a supplement containing antioxidants, vitamins E and B6, ginkgo biloba, and a green tea extract designed to enhance GABA, serotonin and dopamine levels. We have had good success with this product.
- Cholodin is another supplement that provides nutrients that nourish the brain and nervous system. We use it for cognitive function and nerve conduction deficits.
- Omega 3 fatty acids, found in fish oil, are anti-inflammatory and have antioxidant properties as well. OM3 supplements are beneficial for arthritis, kidney and heart diseases, dry skin and cancer prevention, as well as cognitive dysfunction. We recommend that all adult and senior cats and dogs take fish oil, especially the older ones.
- Antianxiety medications we can try include gabapentin, fluoxetine and Solliquin. These can be effective for nighttime crying and wandering, too.
- Heated beds, aromatherapy, music and body wraps such as the Thundershirt are other things we can try.

Treating CCD can be complex. Because the disease is progressive we will need to add or adjust things as your dog ages. Our goal is to keep your pet as healthy and comfortable as possible in his or her golden years.

Your dog's plan is: _____

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