



## CANINE COGNITIVE DYSFUNCTION SYNDROME

We are commonly presented with dogs that owners describe as having "old age." Older animals do indeed tend to have sensory (mainly vision and hearing) and musculoskeletal changes (e.g. arthritis). However cognitive decline is not considered a normal aging change (although its prevalence does increase with age) and many of these dogs have Canine Cognitive Dysfunction Syndrome (CCDS). This is essentially the doggy version of Alzheimers disease.

CCDS occurs due to development of plaques in different areas of the brain and decreased neurotransmitter availability. Diagnosis is usually based on excluding other physical problems (the vet will likely suggest blood and urine tests) and the presence of some or all of the following:

- Disorientation – changes in spatial awareness, loss of ability to navigate around familiar obstacles, wandering behaviour
- Interaction changes – decreased interest in social interactions, petting or greeting as well as "clingy" behaviour
- Sleep/wake cycle – restlessness or frequent waking during the night, increased sleep during daytime hours
- House-soiling – loss of signalling, indoor elimination, incontinence
- Activity level changes – decreased exploration and response to stimuli, decreased grooming, decreased appetite, increased anxiety including restlessness, agitation and/or separation distress.

### Treatment

There is no cure for cognitive dysfunction and the disease is progressive. However there are a few things owners can do to delay progression and improve symptoms. If any therapy is considered effective it should be continued for life.

Environmental enrichment is important. Gentle exercise and new toys will help keep the brain working. Toys that involve food and puzzles are an excellent option such as the Twist & Treat.

Hills prescription diet B/d contains Vitamin E and C, the antioxidants beta carotene, selenium, alpha-lipoic acid, flavonoids and carotenoids from fruits and vegetables (spinach, tomatoes, grape pomace, carrot granules and citrus pulp), L-carnitine and omega-3 fatty acids all of which help to enhance brain health. It is possible to make a home made version of this but it is quite complicated and costly (for example a 20kg dog would need 5600mg L-carnitine, 1000mg fish oil, 50mg lipoic acid, 25-100mg Vitamin C, 100IU Vitamin E, fruit and steamed vegetables).

There are also nutraceuticals available that contain some of the above ingredients as well as homeopathic remedies. Most of these have to be ordered from overseas. For example Senilife, Neutricks or Proneurozone.

Medication also helps improve brain transmission so the vet will often also recommend daily treatment such as Anipryl or Vivitonin. Please note these can take a few weeks to months to take effect and all side effects or concerns should be discussed with your vet.

A combination of these treatments have been proven to improve existing behavioural signs of CCDS and delay onset of additional signs.

*Written by P Honson 2017*