

PURINA® PRO PLAN® Veterinary Diets introduces Canine NC NeuroCare - the diet that's changing minds

PURINA® PRO PLAN® has recently announced the launch of a new diet, Canine NC NeuroCare to extend its Veterinary Diets range. The new diet is specifically formulated with MCT and neuroprotective nutrients, clinically proven to help enhance canine brain function, and support dogs with age-related cognitive decline.

The most interesting component of the new diet is the addition of Medium Chain Triglycerides (MCTs) oil - in fact **Canine NC NeuroCare is the first and only canine diet to contain 6.5% MCT in its formulation***. MCTs provide an alternative energy source for the brain which could help benefit dogs at times when their brain is in a hypometabolic state and cannot use glucose as efficiently as normal.

"This is an exciting discovery," said Jason Gagné, DVM, Dipl. ACVN and Director, Veterinary Technical Marketing at Purina. "It shows the role nutrition can play in helping support the brain function and the age-related cognitive decline, and the potential to give dogs and their owners greater quality of life."

Why MCTs?

Although the brain is highly dependent on glucose as an energy source, under certain situations it can also fulfil a major part of its energy needs through the use of substrates other than glucose, specifically ketones -hydroxybutyrate and acetoacetate formed when fatty acids are released from triglycerides and then converted to ketone bodies by the liver. Fat is the most concentrated energy source available; however, the brain is limited in its ability to use long chain triglycerides (LCTs) as an energy source. MCTs release medium chain fatty acids

(MCFA) which can also be rapidly converted to ketone bodies by the liver, with the advantage over LCTs that they are more efficiently absorbed and metabolised. Given these properties, diets enriched with MCT have been successfully used to support brain function in conditions associated with brain glucose hypometabolism in humans, to support cognitive function in aged dogs. In addition, scientists have also discovered that the MCFA decanoic acid may inhibit excitatory neurotransmission by blocking AMPA receptors.

But the inclusion of MCTs in this diet is not the whole story

Canine NC NeuroCare also contains a specific, exclusive combination of nutrients to help support cognitive function:



ARGININE
to support brain function, healthy circulation and blood pressure



EPA + DHA
to help reduce inflammation and support brain function



ANTIOXIDANTS (VITAMINS E & C, SELENIUM)
to help reduce oxidative stress on the brain



B GROUP VITAMINS
to support energy metabolism and maintenance of genetic structure

PURINA®
PRO PLAN®
VETERINARY
DIETS

NC NEUROCARE®

THE DIET THAT'S CHANGING MINDS



Discover the difference nutrition can make to brain health. Canine NC NeuroCare®, the latest innovation from PURINA® PRO PLAN® VETERINARY DIETS, it is a ketogenic diet formulated with 6.5% MCT (medium chain triglycerides) that provides an alternative source of energy for the brain in a hypometabolic state.^{3,4} It also contains a unique combination of ingredients proven to help with age-related cognitive decline.⁵

Find out more about the science behind NeuroCare and how this could support your clinical recommendation by contacting your PURINA representative.



MCT



COGNITIVE FUNCTION



BRAIN FUNCTION

References:
1. Pan Y. Enhancing brain functions in senior dogs: a new nutritional approach. *Top Companion Anim Med* 2011;26:10-16. 2. Studzinski CM, MacKay WA, Beckett TL et al. Induction of ketosis may improve mitochondrial function and decrease steady-state amyloid-beta precursor protein (APP) levels in the aged dog. *Brain Res* 2008;1226:209-217. 3. Law TH, Davies ES, Pan Y, Zanghi B, Wan E, Volk HA. A randomised trial of a medium-chain TAG diet as treatment for dogs with idiopathic epilepsy. *Br J Nutr* 2015;114:1438-1447. 4. Packer RM, Law TH, Davies E, Zanghi B, Pan Y, Volk HA. Effects of a ketogenic diet on ADHD-like behavior in dogs with idiopathic epilepsy. *Epilepsy Behav* 2016;55:62-68. 5. 5. Pan Y. Efficacy of a Therapeutic Diet on Dogs with Signs of Cognitive Dysfunction Syndrome. 2017. ACVIM Forum (National Harbor, Maryland).

*based on declared amount of MCT in the ingredient list