

PURINA®
PRO PLAN®
VETERINARY
DIETS



NC NEUROCARE™

NUTRITIONAL SUPPORT FOR

- Brain function
- Age-related cognitive decline

CANINE NC NEUROCARE

Key nutrient values (as fed)	Dry
Moisture	7.5%
Protein	30%
Fat	15%
Carbohydrates	38.5%
Crude fibre	1.5%
MCT	6.5%
EPA + DHA	0.4%
Vitamin E	519 IU/kg
Vitamin C	82 mg/kg
Arginine	2.2%
Selenium	0.5 mg/kg
B vitamins	210 mg/kg
Metabolisable energy (ME)*	3.67 kcal/g



3 kg, 12 kg

**based on declared amount of MCT in the ingredient list

*Calculated using modified Atwater's factors.

FEEDING GUIDE

Adult body weight (kg)	ADULT (g/day)	SENIOR (g/day)
2.5	70	60
5	110	95
10	175	155
15	230	200
25	325	285
35	405	355
45	480	420
70	645	565

INGREDIENTS

Maize, dehydrated poultry protein, wheat flour, dehydrated salmon protein, medium chain triglycerides oil (6.5%), dried beet pulp, rice, dried egg, maize gluten meal, digest, fish oil, minerals.



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Formulated with MCTs and neuroprotective nutrients clinically proven to help enhance canine brain function

- The 1st and only canine diet formulated with 6.5% MCTs (medium chain triglycerides)
- Contains a unique combination of nutrients to help support cognitive health/function
 - Arginine
 - EPA+DHA
 - Antioxidants (Vit E and C)
 - Vitamin B Group
 - Selenium



ARGININE
 Supports healthy circulation, blood pressure and brain function



EPA + DHA
 Supports brain structure and function. EPA helps reduce inflammation



ANTIOXIDANTS:
 Vit C, Vit E, Selenium. Helps reduce oxidative stress



B VITAMINS
 Used in energy metabolism and DNA maintenance



Formulated to help support cognitive function in elderly dogs

- With age, dogs' cognitive function commonly declines
- In a recent study¹, elderly dogs (older than 9 years) exhibiting signs of age-related cognitive decline were fed a diet containing 6.5% MCT plus the specific combination of nutrients to support cognitive brain function
- Dogs fed with this diet improved across all DISHAA categories after 90 days

D

Disorientation

I

Interaction-social relationships

S

Sleep/wake cycles altered

H

House soiling, learning and memory

A

Activity altered (decline in activity, restlessness, repetitive movements)

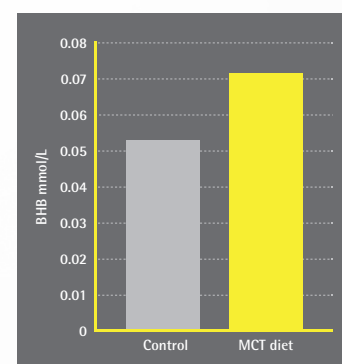
A

Anxiety



Ketogenic diet providing an alternative source of energy for the brain

- The brain usually utilises glucose as its primary energy source. In the face of compromised glucose metabolism, neurons may benefit from an alternative source of energy such as ketone bodies.
- MCTs are more efficiently digested and absorbed by the GI tract than long chain triglycerides (LCTs) and the resulting medium chain fatty acids (MCFAs) are more efficiently transported to the liver via the portal vein where they are converted to ketone bodies^{2,3}.
- The liver-derived ketones readily cross the blood-brain barrier where they can be converted into acetyl-coA and enter the citric acid cycle for oxidation and provide an alternative source of energy.
- Also MCFAs from MCTs are more readily oxidised by astrocytes in the brain than long chain triglycerides and therefore can be used as an alternative energy source by the brain.



Levels of the ketone body, β -hydroxybutyrate significantly higher in the blood of dogs fed a diet fortified with MCTs vs. control diet⁴

1. Pan Y. Efficacy of a Therapeutic Diet on Dogs with Signs of Cognitive Dysfunction Syndrome. 2017. ACVIM Forum (National Harbor, Maryland).
 2. Sills MA, Forsythe WI, Haidukewych D, et al. The medium chain triglyceride diet and intractable epilepsy. *Arch Dis Child* 1986; 61, 1168-1172.
 3. Puchowicz MA, Smith CL, Bomont C, et al. Dog model of therapeutic ketosis induced by oral administration of R, S-1,3-butanediol diacetoacetate. *J Nutr Biochem* 2000; 11, 281-287.
 4. Law TH, Davies ES, Pan Y, et al. A randomised trial of a medium-chain TAG diet as treatment for dogs with idiopathic epilepsy. *Br J Nutr*. 2015 Nov 14;114(9):1438-47.