CAPTEX® triglycerides are prepared from high-purity vegetable oil fatty acids. They have been specifically designed for pet food, nutrition, topical, supplement, and pharmaceutical products that require high quality nutritionals, solubilizers, extenders, and carriers. When incorporated into diets, CAPTEX MCTs may provide healthy animal support in several areas:

- weight wellness
- cognition
- geriatric support
- neonatal support
- GI support
- energy

REFERENCES


MEDIUM CHAIN TRIGLYCERIDES (MCT) are fats composed of fatty acids of 8-10 carbons. These triglycerides are easily digested into fatty acids that are freely absorbed from the intestine into the portal vein for direct access to the liver. In the liver, MCTs are quickly metabolized into ketones that are able to be used as an alternate energy source by the brain.

COGNITION, in humans, is a complex notion that includes learning and memory, language, attention, motor skills, executive function, and spatial abilities. These functions are also integral parts of an animal's cognitive process and the improvements in nutrition and veterinary medicine have allowed our companion animals to live longer. As such, the decline in cognitive function noted in humans is also mirrored in our companions. The term cognitive dysfunction syndrome is used to describe the progressive cognitive decline that is characterized by a gradual decline in learning, memory, perception, and awareness in animals.1,2 Using protocols that are designed to assess different cognitive areas, it has been shown that cognitive decline can start as early as 6 years in dogs and in cats, age-related cognitive impairments are noted before the clinical signs of cognitive decline.2,3 This may suggest a link between cognitive impairment and behavioral changes.3

Feeding MCTs for 3 weeks resulted in increased circulating ketone levels and improved cognitive function in aged rats. MCTS IN RATS [4]

<table>
<thead>
<tr>
<th>ALTERNATION (T-MAZE TEST)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCT</td>
</tr>
<tr>
<td><img src="image-url" alt="Graph" /></td>
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</table>

ALTERNATION RATES (%)

<table>
<thead>
<tr>
<th>YOUNG ANIMALS</th>
<th>OLD ANIMALS</th>
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<tbody>
<tr>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>20</td>
<td>60</td>
</tr>
<tr>
<td>40</td>
<td>80</td>
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</table>

KETONE

Adapted from data in [4]

MCTS IN DOGS [5]

<table>
<thead>
<tr>
<th>NUMBER OF ERRORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONTROL</td>
</tr>
<tr>
<td><img src="image-url" alt="Graph" /></td>
</tr>
</tbody>
</table>

Adapted from data in [5]

**Dogs with at least one sign of cognitive decline**

- 20% of cats are 10 years old or older
- 50% > 15 years old

**Canine cognitive decline**

- 5% of dogs 10-12 yo
- 23% of dogs 12-14 yo
- 41% of dogs >14 yo

**Cats with at least one sign of cognitive decline**

- 28% 11-14 years old
- 50% > 15 years old

**MCTs in rats**

- 1st RUN right arm chosen
- 2nd RUN a decision: left or right
- left arm: correct right arm: incorrect

**Increased confusion**
- Alterations in sleep-wake cycle
- Loss of housetraining
- Barks at night for no reason

**Decreased interaction with humans and other animals**

**Alterations in activity - aimless wandering**

**Loss of litterbox habits**
- Meows at night for no reason
- Alterations in activity - aimless wandering

**Decreased interaction with humans and other animals**