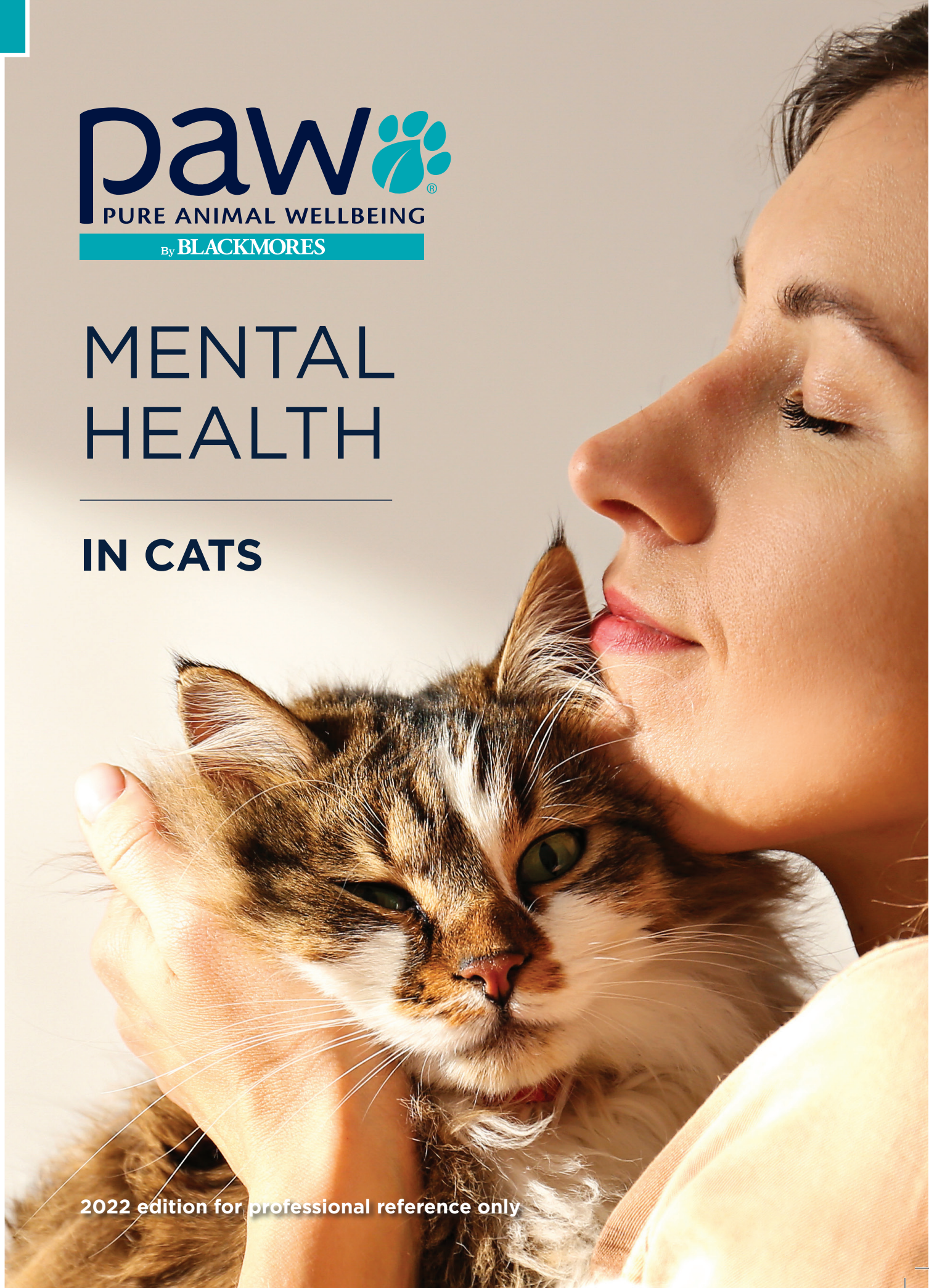




MENTAL HEALTH

IN CATS

2022 edition for professional reference only



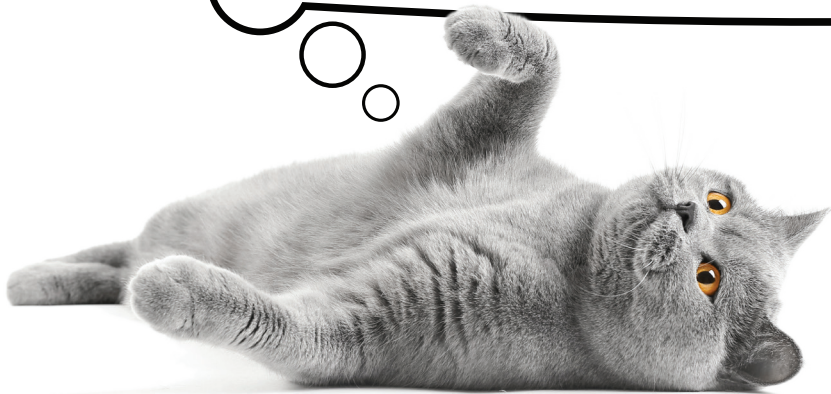
MENTAL HEALTH IN CATS



DID YOU KNOW?

Behaviour-related problems in pets are one of the most common reasons for surrender and surrender for euthanasia to animal shelters.¹

Mental illness such as anxiety, aggression, inability to learn and phobias, can have a detrimental effect on the quality of life of pets and their owners.²



CATS ARE NOT JUST SMALL DOGS

Behaviour consultations are quite different in cats versus dogs. A common mistake made by veterinarians is assuming cats are just small dogs and trying to apply the same treatment rules.³

By respecting their genuine ethology, considering their territory, prey and predator status, hierarchy, and social life, we can better understand feline behaviour. Signs of anxiety can be different in cats: rolling skin syndrome, decrease in face rubbing, decrease or increase in self-grooming, behaviours that don't exist in dogs or don't mean the same thing in cats and dogs.³

But the first step, if we want to successfully treat more cats with mental health concerns, is to better understand how they live, starting from their ethology as well as what we know about the adjustments cats have to make to live alongside humans.³

Based on research, cat owners report:⁴



WHY DOES MENTAL ILLNESS OCCUR IN CATS?

Mental illness, such as anxiety, results from a complex interaction of:



environmental conditions



conditioning



neurological adaptation



genetics

Neurotransmitters, such as serotonin, influence how an animal responds to stressful situations. Occasional fear or anxiety may be appropriate in some contexts but repeated overreactions to situations perceived as harmless, can be detrimental for the pet and the owner.⁵

Mental illness "on the outside"^{4,5,6,7}



SEROTONIN AND THE CENTRAL NERVOUS SYSTEM

In the central nervous system (CNS) of humans and animals, serotonin (5-hydroxytryptamine, 5-HT) serves as a neurotransmitter.^{2,6} Brain-derived serotonin is important in the regulation of many behavioural and neuropsychological processes.⁵

Brain-derived serotonin helps regulate⁵:

- ✓ Mood
- ✓ Reward
- ✓ Aggression
- ✓ Memory
- ✓ Perception
- ✓ Anger
- ✓ Appetite
- ✓ Attention

Despite the relatively low concentration of brain-derived serotonin compared to that in the rest of the body, it has a broad impact and is involved in numerous psychiatric conditions and psychological processes, such as depression in people.^{7,8}



CROSSING THE BLOOD-BRAIN-BARRIER

Boosting central serotonin with L-tryptophan

Serotonin does not cross the blood-brain barrier.¹⁰ For brain-derived serotonin production to occur, tryptophan first needs to gain access to the central nervous system via the blood-brain barrier, where it is then converted to serotonin.⁷

Therefore, supplementing with serotonin is not an option to enhance serotonin synthesis. Instead, supplementation with L-tryptophan containing nutraceuticals or tryptophan-rich dietary proteins can enhance tryptophan availability to the brain and boost brain-derived serotonin levels.

L-tryptophan: the precursor to serotonin

L-tryptophan is an essential amino acid found in many protein-based foods and dietary proteins including meats, dairy, fruits and seeds.⁷ It is found in the lowest concentrations among the amino acids in the body.⁷ L-tryptophan is the sole precursor of peripherally and centrally produced serotonin.⁶ Only 3% of dietary tryptophan is used for serotonin synthesis throughout the body and it is estimated that only 1% of dietary tryptophan is used for serotonin synthesis in the brain.⁸



L-Tryptophan supplementation and its anxiolytic effect on multi-housed cats⁹

In a double blinded placebo-controlled study, a total of 25 multi-housed cats were observed.

Cats were randomly assigned where half of the group received dietary supplementation of L-Trp starting at the 7th week while the other half received placebo supplementation. L-Trp daily dose was 12.5 mg/kg administered with daily meals.

Cats were observed 5 days per week during a period of three and a half months (2 weeks for

habituation, 4 weeks without supplementation and 8 weeks with supplementation).

After L-Trp supplementation all the stereotypies, vocalisation, agonistic behaviour, exploration and sustaining behaviours decreased. In the same way house soiling, scratching and agonistic interactions inside the group significantly decreased.

Stress related behaviours including avoidance, threat, fighting, displacement activity, staring and vocalisation decreased significantly in cats supplemented with L-Trp.



These results suggest that L-Trp supplementation alters the frequency of stress related behaviours and decreases anxiety signals in multi-housed cats.

Consequently L-Trp supplementation can be regarded as a very efficient tool to assist in the treatment of some behavioural disorders in cats. As the L-Trp supplementation reduces some of the animal's anxiety signs, this suggests that it is also beneficial in improving their welfare.

PAW COMPLETE CALM FOR CATS



Contains Tryptophan, B group vitamins and key minerals to help maintain nervous system function and a healthy immune system



Tasty Salmon based chew for ease of administration with fussy cats



Active Ingredients:

Each 1.2g chew contains:

- + tryptophan 45.23 mg
- + vitamin a and e
- + menadione (K3)
- + riboflavin (B2)
- + cyanocobalamin (B12) 21 µg
- + niacin (B3)
- + pantothenic acid (B5) 0.13 mg
- + folic acid (B9)
- + biotin (B7)
- + copper sulphate
- + iron sulphate
- + manganese oxide
- + calcium iodate
- + zinc sulphate
- + selenium
- + omega 3
- + ascorbic acid
- + thiamine (B1) 0.13 mg
- + pyridoxine (B6) 0.05 mg

Pack size: 63 chews

Dosage:

Cats' weight	Daily Dosage (1.2g/ chew)
1 - 4.9 kg	2 chews
5 - 10 kg	4 chews

Application: Feed daily with food. Chew can be given whole or crumbled over food.

Warnings/prescribing information: Do not use if cat is on behavioural medication.

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