EUFORIS

Feed supplement in oil form, intended to promote homeostasis, balance and general well-being in dogs and cats

EUFORIS (U-FO-RIS)
The name is inspired by the Greek word « εὐφορία », which means « power of enduring easily, contentment, sense of well-being »

The action of Euforis is due to the synergy between the different molecules (phytocannabinoids) of hemp oil and the omega-3 essential fatty acids from fish oil. Cannabidiol (CBD) is the main phytocannabinoid present in Euforis, and it the most interesting molecule at a clinical level, because of its anti-inflammatory, analgesic and anxiolytic effects. Pets under chronic pain, stress and inflammation can benefit from the incorporation of Euforis in their everyday routine.

Hemp oil (4% CBD, <0,05% THC)

Recent advances in cannabidiol (CBD) use in canines and felines for anxiety management, pain management, and anti-inflammatory effects have demonstrated that CBD is well-tolerated in dogs, with insufficient information on the safety profile of CBD in cats. Preliminary evidence exists to support the analgesic and anti-inflammatory, and to a lesser extent anti-anxiety, properties of CBD but there is a significant gap in the literature on the therapeutic use of CBD in cats, with very sparse feline data.

While CBD oil administration in shelter dogs has been shown to reduce aggressive behavior towards humans[1], anxiolytic evidence has not been observed in dogs supplemented with CBD oil[1] or CBD-infused treats[2].

There are currently no data available on CBD use in cats for anxiety, except for a pharmacokinetics study with CBD isolate in sunflower oil[3], which demonstrated no statistically significant changes in behavior scoring (activity, interaction, and vocalization) after CBD administration or placebo at any dose.

A number of studies[4-8] have evaluated CBD supplementation in managing chronic canine pain, although none in feline pain, whether acute or chronic. CBD supplementation delivered by oral administration of CBD oil[4], ingestion of CBD-enriched tablets[6], CBD-enriched hemp oil delivered on food[5] and ingestion of naked and liposomally-encapsulated CBD[8] at doses of 0.3–4.12 mg/kg body weight alleviated osteoarthritic (OA) pain in client-owned dogs and improved quality of life. In one double-blinded, crossover, placebo-controlled study[7], no OA pain relief

was observed using CBD treatment, while elevation in liver enzymes and vomiting were noted as side effects.

In vitro studies have demonstrated that CBD attenuates inflammation by 1) suppressing pro-inflammatory cytokines and chemokines such as TNF-α, GM-CSF, IFN-γ, IL-10, and IL-6, etc., 2) limiting immune cell infiltration, 3) inducing T-cell apoptosis, 4) inhibiting T-effector cell proliferation, and 5) promoting T-regulatory cell proliferation[9-11]. In an experimental model of arthritis, topical CBD application reduced joint swelling as well as the thickening of the synovial membrane in a dose-dependent manner[12].

A recent study[13] evaluated the impact of a cannabidiol (CBD) and cannabidiolic acid (CBDA) rich hemp product on acute post-operative pain in dogs following a tibial plateau leveling osteotomy (TPLO) failed to measure an effect on measures on pain or early bone healing, but demonstrated a possible association of CBD/CBDA and reduced post-operative anxiety.

Fish oil

Fish oil is one of the best sources of omega-3 essential fatty acids, such as eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), which are considered to promote cognitive health, joint mobility and slow down inflammatory processes.

In one study[14] comparing omega-3 polyunsaturated fatty acid status in aggressive dogs and their normally behaving counterparts, results showed that German Shepherds dogs with a history of aggressive behaviour displayed a significantly lower docosahexaenoic acid (22:6 n-3) concentration and a significantly higher omega6/omega-3 ratio when compared with non-aggressive dogs.

In another study[15] in dogs with behavior disorders, supplementation with fish oil supplements containing 330 mg EPA and 480 mg DHA, plus 12-15 mg/kg of magnesium citrate and 5 mg/kg of zinc sulfate, resulted in statistically significant reduction in the median score for the severity of fearfulness, and inappropriate elimination but showed no significant differences in the median score for the severity of excessive activity, aggression towards dogs and aggression towards unfamiliar people during the course of the study.

In dogs suffering from osteoarthritis, when compared to placebo, there was not a major statistically significant benefit in using deep sea fish oil as a pain reliever in the study population[16]. However, the fish oil treated patients improved significantly in many of the variables, when comparing baseline values to the study-end values within the group, indicating a true but mild symptomatic relief.

Fish oil is one of the most prescribed therapies in the treatment of chronic musculoskeletal pain in cats[17]. In a study on cats[18], fish oil and flaxseed oil were

added to the diets, respectively, at a n-6: n-3 PUFA ratio of 5:1. Cats fed fish but not flaxseed oil had higher ($P < 0.05$) skin leukotriene LTB5, but not LTB4. Fish and flaxseed oils lowered B, total T and Th subset populations. Therefore, fish and flaxseed oil can reduce skin inflammatory responses in cats, however, flaxseed oil appears less immunosuppressive than fish oil.

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