



EXCELLENCE IN PET NUTRITION

KURASYN
CANINE

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Curcumin & Hyaluronic Acid
Support Supplement for Dogs



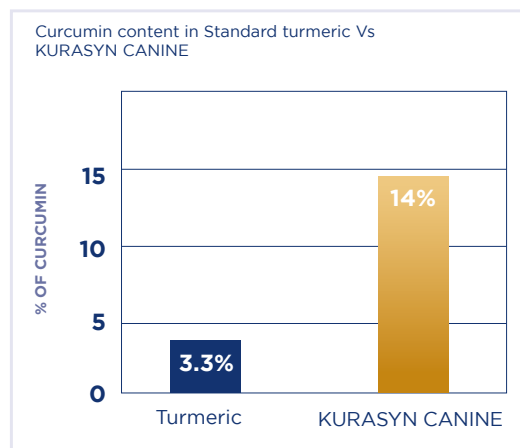
KURASYN CANINE

KURASYN CANINE is a complementary feed supplement for dogs, containing highly bioavailable Curcumin combined with Hyaluronic acid. It can be fed to dogs as a nutritional adjunct.

CURCUMIN

ACTIVE TURMERIC

Curcumin is the active component of turmeric, a well-known spice with antioxidant properties, and provides support for the digestive, musculoskeletal and immune systems. turmeric contains approximately 1.6-3.3% curcumin and is poorly absorbed in the body, whereas the Curcumin content of the active material in **KURASYN CANINE** is 14%, and is many times more bioavailable.



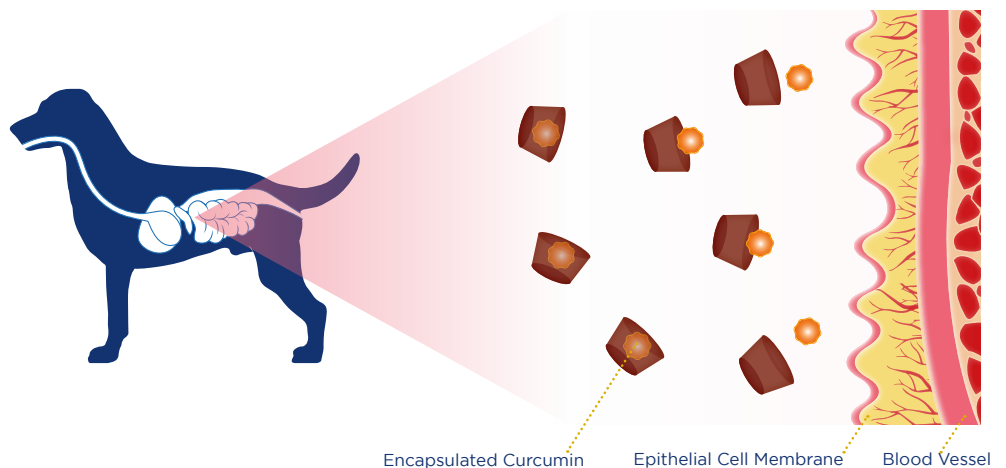
4.24X

The active material in **KURASYN CANINE** contains 4.24 times more Curcumin than standard turmeric.

HOW CURCUMIN WORKS & BIOAVAILABILITY

The benefits of Curcumin are limited by its low solubility in water and corresponding intestinal absorption. Animal studies have shown natural/standard curcumin extract is rapidly metabolised and excreted in the faeces, therefore having limited systemic bioavailability. Curcumin must be given through a carrier to improve bioavailability and absorption into the blood and target tissues.

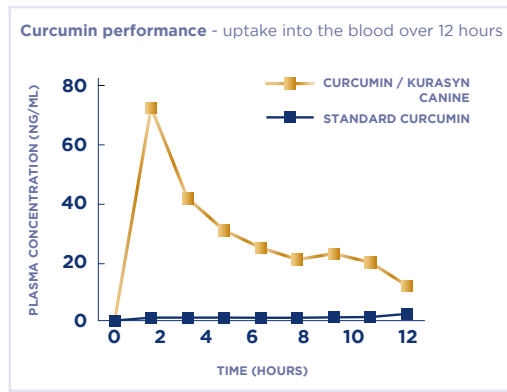
KURASYN CANINE - CURCUMIN IN THE GUT



A delivery strategy such as encapsulating curcumin with natural oligosaccharides improves aqueous solubility, dispersibility and absorption. The unique three-dimensional structure of this oligosaccharide creates an inner hydrophobic cavity which transports curcumin molecules to the intestines. The hydrophilic exterior, on the other hand, ensures compatibility in aqueous systems.

Curcumin is transported unchanged through the stomach into the upper intestinal tract where the curcumin molecules are absorbed into the body through the epithelial cell membrane.

A bioavailability study using the curcumin included in **KURASYN CANINE** showed that Curcumin was **85 times more efficiently absorbed into the blood**, compared to standard curcumin powder derived from turmeric. (Purpura et al).

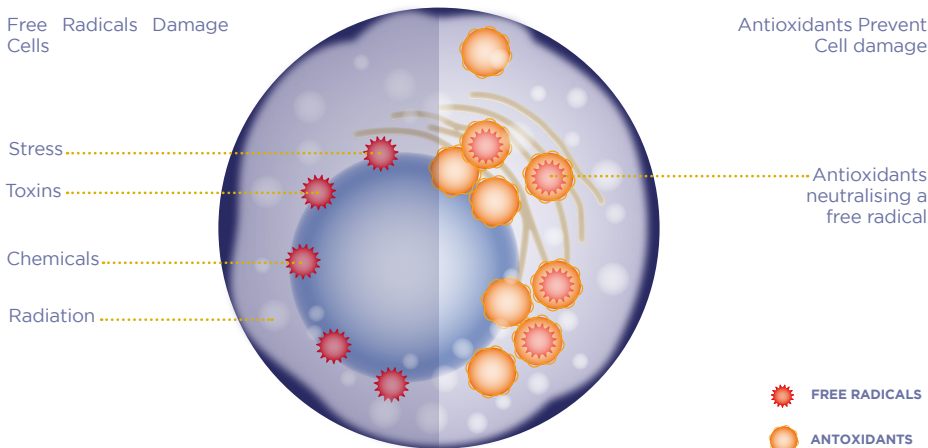


85X

Faster and more efficient absorption than standard turmeric.

POTENT ANTI-OXIDANT FOR MUSCLE & EXERCISE RECOVERY

Antioxidants at work



High levels of exercise, aging or fast growth rates can cause an increase in muscle and joint soreness. This can be debilitating for dogs. Many studies have demonstrated that intense exercise produces considerable amounts of reactive oxygen species (ROS). The production of ROS as a result of exercise has been linked to muscle damage and soreness. During physical exercise, oxygen flux to active skeletal muscles increases, which leads to excess production of ROS, free radicals and eventually oxidative stress. (Kinnunen et al 2005).

In order to prevent oxidative stress, the body contains a large network of antioxidants that either prevent

ROS formation or scavenge free radicals. Strenuous physical exercise, fast growth rates or general heightened levels of stress, where the consumption of oxygen is increased can result in a state of oxidative stress. (FisherWellman and Bloomer 2009b). Defense mechanisms that cope with oxidative stress depend primarily on the synergism between several endogenous and dietary antioxidants. (Sen et al. 2000). Curcumin has remarkable antioxidant activity and its main mode of action is via free-radical scavenging. It has shown to be more effective than Vitamin C and Vitamin E and superoxide dismutase (Sharma OP). At the same concentration it has about twice the antioxidative activity of the polyphenol resveratrol (Aftab & Viera).

HYALURONIC ACID

Hyaluronic Acid is a normal constituent of the joint. Its quantity and quality is reduced in the presence of synovitis and osteoarthritic cartilage. One of its most important roles is to increase the viscosity of the synovial fluid. This will reduce the friction between articular surfaces thus, ensuring a correct and smooth movement of the joint. Biomechanical studies on canine tendons have shown a reduction in resistance when soaked in a solution of Hyaluronic Acid (Akasaka, T. et al.).

There are many types of Hyaluronic acid, such as purified HA from rooster comb or hydrolysed chicken cartilage; however they do not match the biological properties of native HA found in the body. Hyaluronic acid used in **KURASYN CANINE** is purified HA derived from microbial fermentation and is almost identical to native HA. There is published evidence of oral absorption; the Journal of Agriculture Food and Chemistry investigated the uptake of hyaluronic acid in animals. The study demonstrated that Hyaluronic acid is absorbed into the bloodstream and tissues, especially connective tissues after oral ingestion of purified Hyaluronic Acid derived from microbial fermentation.



KURASYN CANINE is a complementary feed supplement for dogs, containing highly bioavailable Curcumin combined with Hyaluronic Acid. The turmeric utilised in the formula has been complexed with a naturally occurring oligosaccharide and has significantly better absorption compared with standard turmeric.

It is suitable for feeding as a nutritional adjunct:

- To dogs for maintenance of normal mobility.
- During periods of rehabilitation.
- Senior dogs.
- For optimum suppleness and movement.

Instructions for proper use:

Mix **KURASYN CANINE** well into the feed.

Feed each animal individually.

Small dogs (up to 10kg):	3ml per day
Medium dogs (10 - 25kg):	6ml per day
Large dogs (25-40kg):	9ml per day
Very Large dogs (over 40kg):	12ml per day

Composition	per 12 ml
Sodium Hyaluronate	37 mg
(Hyaluronic Acid content 36mg/12ml)	
Sorbitol, Glycerine.	

Additives	per 12 ml
Curcuma longa L.	360 mg

Analytical Constituents:

Crude Protein 0.1%, Crude Fat 0.5%,
Crude Fibre 0.4%, Crude Ash 0.3%,
Moisture 64.9%, Sodium 0.0537%.

PRESENTATION: **240ML** **540ML**

