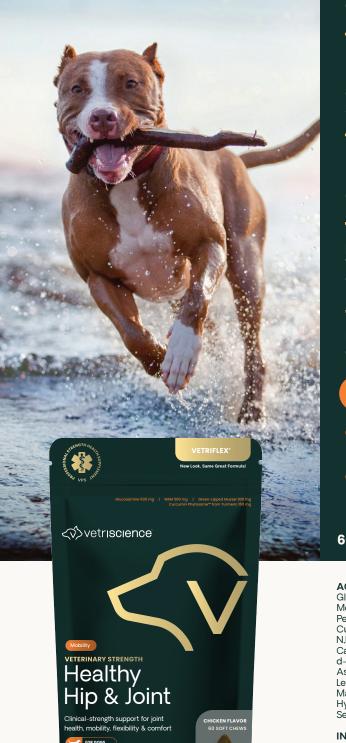
# **VETERINARY STRENGTH** HEALTHY HIP & JOINT

New Look. Same Great Formula!



Our most advanced joint support formula for dogs

Phytosome technology activates the antioxidant power of curcumin, boswellia and grape seed extract by providing greater bioavailability than standard extracts

Features the clinically proven GlycoFlex<sup>®</sup> 3 formula plus additional antioxidant herbal extracts

By supporting a healthy inflammatory process, the VetriFlex<sup>®</sup> formula provides superior joint comfort to dogs

No recommended loading dose leads to better compliance

# **Recommended for:**

- Senior dogs in need of advanced joint support
- Ø Breeds that are predisposed to joint issues
- prone to joint issues and tissue damage
- Active and working dogs Obgs experiencing joint discomfort

60 SOFT CHEWS | CHICKEN FLAVOR | 090092B.060

### ACTIVE INGREDIENTS PER 1 CHEW (6.5 G):

Glucosamine HCI (Shrimp and Crab)	500 mg
Methylsulfonylmethane (MSM)	
Perna canaliculus (GlycOmega <sup>™</sup> brand Green-Lipped Mussel)	300 mg
CurcuVet® (Curcumin Phytosome™)	.150 mg
N,N-Dimethylglycine HCI (DMG)	
Casperome <sup>®</sup> (Boswellia Phytosome™)	
d-alpha Tocopheryl Acetate (Vitamin E)	
Ascorbic Acid (Vitamin C)	. 25 mg
LeucoSelect® (Grape Seed extract) Phytosome™	
Manganese (Mn Proteinate)	
Hyaluronic Acid (HyaMax is Low Molecular Weight Sodium Hyaluronate)	5 mg
Selenium (Na Selenite).	

**INACTIVE INGREDIENTS:** arabic gum, brewers yeast, calcium sulfate, canola oil, citric acid, citrus pectin, glycerin, hydrolyzed chicken liver flavor, maltodextrin, microcrystalline cellulose, mixed tocopherols, oat flour, propionic acid, rosemary extract, silicon dioxide, sodium alginate, sorbic acid, soy lecithin, vegetable oil, water.





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#### The Phytosome Process:

In a groundbreaking process an herbal extract is bound to a phospholipid. This innovative process encloses the extract in a phospholipid envelope thus creating the phytosome-encapsulated ingredients. The ingredients are bound with phosphatidylcholine, the principle phospholipid found in cell membranes. This unique phytosome complex easily crosses the gut barrier resulting in significantly higher blood levels.1

## **INGREDIENTS OF INTEREST:**

### CurcuVet<sup>®</sup> (Curcumin Phytosome)

- > Numerous studies in dogs, horses, sheep, rodents, and humans demonstrate CurcuVet®'s potential for helping to maintain normal inflammatory processes.
- > Extensive studies have proven curcumin to be a potent COX-2 and 5-LOX inhibitor.<sup>2</sup>
- > A recent study found that CurcuVet® was effective in helping to downregulate genes involved in inflammatory response development.3
- > Multiple studies demonstrate a nearly 30 fold increase in bioavailability when compared to standard curcumin extracts.<sup>4</sup>

### Casperome® (Boswellia Phytosome)

- > The bioavailability of Boswellic acids from Casperome® is greatly optimized both at the plasma and tissue levels.
- > Studies show that serum levels of KBA (11-keto-B-Boswellic acid) are increased sevenfold, and serum levels of B-Boswellic acid can be increased threefold when compared to standard Boswellia serrata gum capsules with the same amount of Boswellic acids.<sup>5</sup>



GlycOmega™ is a Trademark of Aroma New Zealand LTD. Casperome®, CurcuVet®, LeucoSelect® are registered trademarks of Indena SpA, Italy. HyaMax® Brand Sodium Hyaluronate is a Trademark of Fenchem Enterprises, LTD.

#### LeucoSelect<sup>®</sup> (Grape Seed Phytosome)

- > Research has demonstrated LeucoSelect®'s ability to help reduce oxidative stress and to support plasma antioxidant defenses.6
- > The scientific profile of LeucoSelect® Phytosome has been defined by extensive in vitro and in vivo experimental studies, clinical trials, and safety studies.7

#### Hyaluronic Acid (HyaMax<sup>®</sup> Low Molecular Weight Sodium Hyaluronate)

> HyaMax<sup>®</sup> is a low molecular weight source of hyaluronic acid produced through fermentation. One study showed that orally administered HyaMax® hyaluronic acid was incorporated into connective tissue, skin cells, and joints, particularly cartilaginous joi nts.8

#### Perna canaliculus (GlycOmega<sup>™</sup> brand Green-Lipped Mussel)

- > Research has demonstrated that Perna modulates the levels of pro-inflammatory cytokines, such as TNF-alpha, IL-1-, IL-2 and IL-6, cyclooxagenase enzymes, and immuoglobulin IgG.The presence of chondroitin sulfates 4 and 6, hyaluronic acid, dermatan sulfate, and other key GAGs in Perna provide improved viscosity, flexibility, and tensile strength of the articular cartilage.910
- > Extensive clinical use in dogs, cats, and horses has led to improved mobility, range of motion, and comfort level of the animals.<sup>11</sup>

#### N,N-Dimethylglycine HCI (DMG)

- > DMG is referred to as a "metabolic enhancer" because of the many ways it can improve cellular metabolism, especially under conditions of stress in the body.
- > A number of patents have been issued for the use of DMG, including US Patent #7,229646B2 entitled, "Methods and Compositions" for Modulating the Immune Response and for the Treatment of Inflammatory Disease."

S Bhattacharya, A Ghosh. Phytosomes: the Emerging Technology for Enhancement of Bioavailability of Botanicals and Nutraceuticals. The Internet Journal of Aesthetic and Antiaging Medicine 2008 Volume 2 Number 1.

<sup>2</sup>Togni S, Appendino G. Curcumin and Joint Health: From Traditional Knowledge to Clinical Validation (2103) Bioactive Food as Dietary Interventions for Arthritis and Related Inflammatory

<sup>3</sup> Di Pierro F, Rapacioli G, Di Maio E, Appendino G, Franceschi F, Togni S. Comparative evaluation of the pain-relieving properties of a lecitinized formulation of curcumin (Meriva®), nimesulide, and acetaminophen (2013) Journal of Pain Research.

<sup>4</sup> Cuomoa, J., et al., Comparative absorption of a standardized curcuminoid mixture and its lecithin formulation. J Nat Prod, 2011. 74(4): p. 664-9 <sup>5</sup> Husch, J., et al., Enhanced absorption of boswellic acids by lecithin delivery form (Phytosome™) of boswellia extract. Fitoterapia, 2013. 84: p. 89-98.

6 Schwitters B, Masquelier J. OPC in practice: Biflavanals and their application. Alfa Omega, Rome, Italy, 1993

7 Kidd, Parris. (2009). Bioavailability and Activity of Phytosome Complexes from Botanical Polyphenols: The Silymarin, Curcumin, Green Tea, and Grape Seed Extracts. Alternative medicine review : a journal of clinical therapeutic. 14. 226-46.

<sup>®</sup>Absorption, distribution, and excretion examinations of 99mTechnetium labelled hyaluronic acid (HyaMax™) after single dose per oral administration.

\*Lawson J, et al. Evaluation of Perna canaliculus on the inflammatory markers TNF-alpha and IL-12 p40. Clemson University, 2006. Published in BMC Complementary and Alternative Medicine, 2007, 7:20.

10 Mani S and Lawson J. In vitro modulation of inflammatory cytokine and IgG levels of Perna canaliculus. BMC Complement Alternative Med., 2006; 6:1.

<sup>11</sup> Eason CT, Adams SL, Puddick J, Romanazzi D, Miller MR, King N, Johns S, Forbes-Blom E, Hessian PA, Stamp LK, Packer MA. Greenshell<sup>™</sup> Mussels: A Review of Veterinary Trials and Future Research Directions. Vet Sci. 2018 Mar 27;5(2):36

## **Directions for Use:**

WEIGHT	Up to 30 Ibs	31 to 60 lbs	61 lbs +Over
AMOUNT	1/2	1	2
FREQUENCY	Daily or as needed		

