

# IMPROVED JOINT SUPPORT DIET CJD



## IMPROVED JOINT SUPPORT DIET – CJD NOW WITH ADDED CARTILAGE SUPPORTING INGREDIENTS



- Added hydrolysed collagen peptides
- Total level of GAGs unchanged, but increased level of chondroitin - replacing glucosamine - for its better support of joint function and pain relief
- Added beta glucans
- Added krill – a superior form of omega-3 better incorporated into the body

## COLLAGEN PEPTIDES

- SPECIFIC CJD now contains PETAGILE<sup>®</sup>, highly purified hydrolysed collagen peptides with an average molecular weight of around 6,000 daltons
- Collagen peptides are highly digestible, can be absorbed as amino acids, di-peptides and to some extent in molecular intact form and accumulate in cartilage tissue<sup>1</sup>
- In in-vitro studies with porcine, bovine or canine chondrocytes, collagen peptides increased biosynthesis of cartilage matrix and reduced inflammatory cytokines, activity of proteases and cartilage degradation<sup>2-4</sup>
- In a study with osteoarthritis-prone mice (STR/ort), collagen peptides could slow down or even halt cartilage destruction<sup>5</sup>
- In clinical trials with dogs with osteoarthritis, hydrolysed collagen peptides reduced lameness and improved mobility<sup>4,6,7</sup>. The observed improvement was associated with decreased plasma levels of MMP-3, a biomarker for cartilage degradation<sup>6</sup>

## SPECIFIC<sup>™</sup> CJD JOINT SUPPORT DIET FOR NUTRITIONAL SUPPORT FOR HEALTHY JOINTS AND MOBILITY FEATURES:



- Uniquely high levels of omega-3 from fish and krill to support the natural anti-inflammatory process and reduce the activity of cartilage degrading enzymes
- Hydrolysed collagen peptides for maintenance of cartilage tissue and improved mobility
- Beta glucans - supporting dogs with OA by reducing inflammatory mediators and mediators involved in supporting joints in dogs
- Chondroitin, a key component of cartilage supports function in painful joints
- High levels of antioxidants to neutralise cartilage degrading free radicals
- Manganese an essential cofactor in the biosynthesis of cartilage
- Optimal weight management - low in fat and high in fibre and with added L-carnitine - a fat burning amino acid derivative.

1. Oesser S et al. (1999) Oral administration of <sup>14</sup>C labeled gelatin hydrolysate leads to an accumulation of radioactivity in cartilage of mice (C57/BL) J Nutr 129: 1891-1895.
2. Oesser S & Seifert J (2003) Stimulation of type II collagen biosynthesis and secretion in bovine chondrocytes cultured with degraded collagen. Cell Tissue Res 311: 393-399.
3. Schunck M et al. (2009) Collagen peptide supplementation stimulates proteoglycan biosynthesis and aggrecan expression of articular chondrocytes. Osteoarthritis Cartilage 17: S143.
4. Schunck M et al. (2017) The effectiveness of specific collagen peptides on osteoarthritis in dogs – Impact on metabolic processes in canine chondrocytes. Open J Anim Sci 7: 254-266.
5. Oesser S et al. (2007) Orally administered collagen hydrolysate halts the progression of osteoarthritis in STR/ort mice. Osteoarthritis Cartilage 15: C61-C62.
6. Weide N (2004) Der Einsatz von Gelatinehydrolysat bei klinisch-orthopädisch gesunden Hunden und Hunden mit chronischen Erkrankungen des Bewegungsapparats. PhD Thesis, Hannover.
7. Beynen AC et al. (2010) Influence of dietary beta-1,3/1,6-glucans on clinical signs of canine osteoarthritis in a double-blind, placebo-controlled trial. Am J Anim Vet Sci 5: 90-94.