



A SCIENTIFIC LEAP IN MOBILITY MANAGEMENT



INCREDIBLE IN EVERY DETAIL

INTRODUCING ADVANCED MOBILITY SUPPORT AN INNOVATIVE APPROACH TO OSTEOARTHRITIS



- Formulated with an innovative joint complex, antioxidants, and EPA and DHA
- Appropriate levels of highly digestible protein and supplemented with leucine to help maintain muscle mass
- Moderate caloric density to help maintain ideal body weight



A NEW BREAKTHROUGH APPROACH

While there is no cure for osteoarthritis, a multi-modal treatment approach including nutritional management can help patients regain the quality of life expected for them. Nutrition can help support canine patients by achieving three goals:

1. Reduction in free radical damage
2. Decreased inflammation
3. Improved balance between cartilage anabolism and catabolism

The **NEW** Advanced Mobility Support Complex provides three key active components to meet these nutritional goals.

ADVANCED MOBILITY SUPPORT COMPLEX

CURCUMIN¹⁻³

- Source of curcuminoids
- Inhibits cartilage catabolism
- Contains antioxidant properties
- Reduces inflammation

HYDROLYZED COLLAGEN^{1,3,4}

- Source of glycine, proline, and hydroxyproline
- Increases cartilage anabolism

GREEN TEA POLYPHENOLS^{1,5}

- Increase cartilage anabolism
- Inhibit cartilage catabolism
- Reduce inflammation
- Contain antioxidant properties



PROVEN SYNERGISTIC ACTION

A pair of recent studies^{6,7} demonstrated the synergistic effect of these three compounds when incubated in culture with chondrocytes under inflammatory conditions. The Advanced Mobility Support Complex showed additive inhibitory effects on gene expression of the following catabolic and inflammatory mediators:

- IL-6 (interleukin-6)
- COX-2 (cyclooxygenase-2)
- iNOS (inducible nitric oxide synthetase)
- MMP-3 (matrix metalloproteinase-3)

ADVANCED MOBILITY SUPPORT

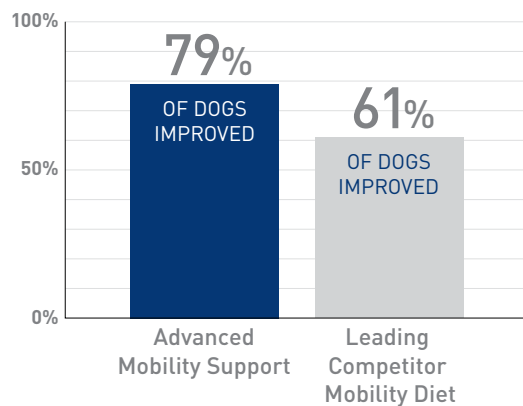
AN INNOVATIVE EXCLUSIVE JOINT COMPLEX

VISIBLE IMPROVEMENTS IN MOBILITY, ACTIVITY, AND QUALITY OF LIFE

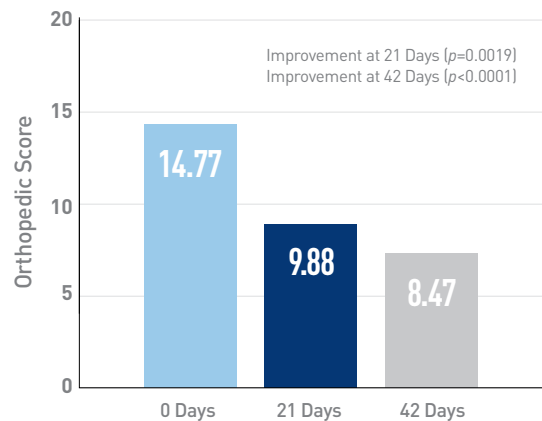
A recent *in vivo* double-blinded, randomized, placebo-controlled pilot study⁸ demonstrated improvement in the Pain At Manipulation score by more than 30% in dogs fed a diet containing the Advanced Mobility Support Complex.

MULTI-CENTRE CLINICAL TRIAL⁹ RESULTS COMPARING ADVANCED MOBILITY SUPPORT TO A LEADING COMPETITOR MOBILITY DIET

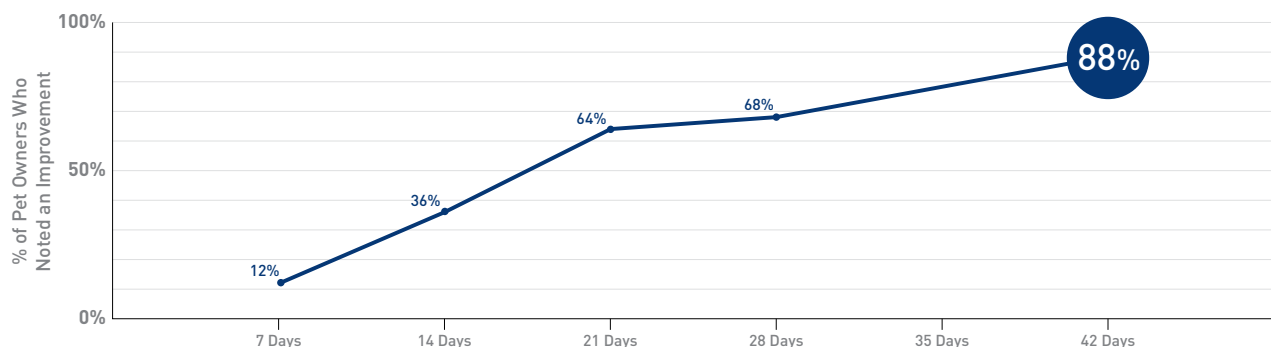
IMPROVEMENT AT THE VETERINARY ORTHOPEDIC EXAM AT 42 DAYS



IMPROVEMENT IN THE ORTHOPEDIC SCORE ON THE VETERINARY EXAM AT 21 AND 42 DAYS



OVERALL PET OWNER ASSESSMENT OF MOBILITY IMPROVEMENT ON ADVANCED MOBILITY SUPPORT



INTRODUCING ADVANCED MOBILITY SUPPORT + SATIETY A TAILORED SOLUTION



ADVANCED MOBILITY SUPPORT



SATIETY

An optimal choice in the multi-modal management of osteoarthritis and obesity.

- Developed for joint support and safe, effective weight loss
- Formulated with the same nutritional benefits of clinically proven ROYAL CANIN® SATIETY SUPPORT WEIGHT MANAGEMENT diets

ADVANCED MOBILITY SUPPORT

- Contains the Advanced Mobility Support Complex to help reduce inflammation and pain⁶⁻⁸
- Helps support joint health following orthopedic surgery or trauma
- Contains appropriate levels of protein and leucine to maintain muscle mass.



SATIETY SUPPORT

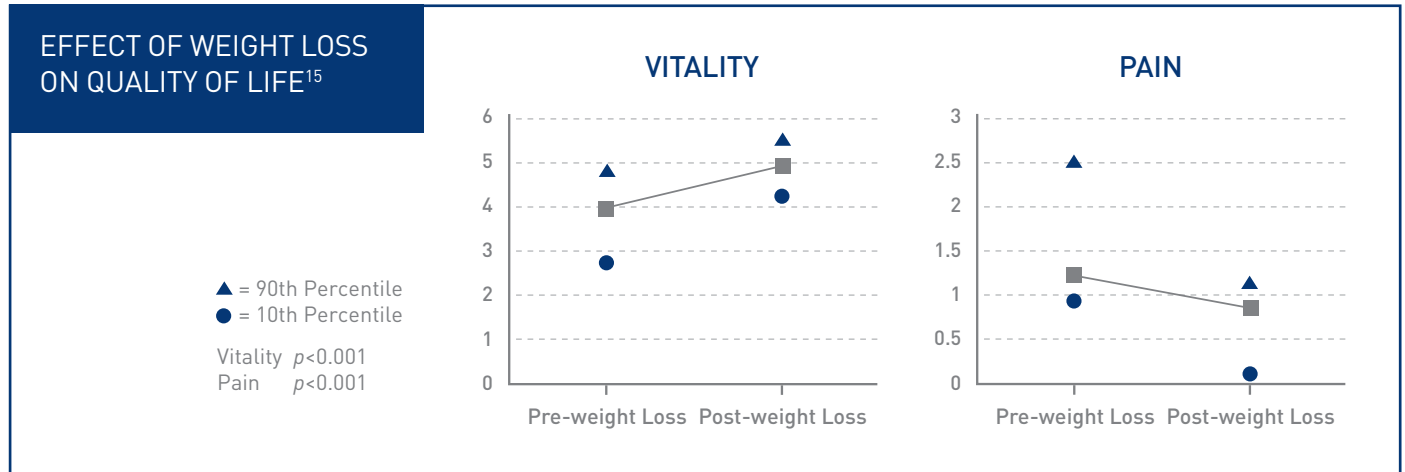
- Balanced for the pursuit of safe, effective weight loss^{10,11}
- Reduces begging behaviour^{12,13}
- Suitable for post-weight loss maintenance¹⁴



SATIETY SUPPORT WEIGHT MANAGEMENT

SCIENTIFICALLY PROVEN EFFICACY

The SATIETY SUPPORT WEIGHT MANAGEMENT diets, containing a unique blend of fibres and a comparatively higher protein content to assist with satiation, have been clinically proven to induce safe, effective weight loss^{10,11} while maintaining muscle mass¹¹, reducing begging behaviour^{12,13}, and improving quality of life.^{10,15}



CLINICALLY PROVEN WEIGHT LOSS

The largest multi-centre clinical trial¹⁰ to date showed that during a three-month period, SATIETY SUPPORT WEIGHT MANAGEMENT delivered:



EFFECTIVE WEIGHT LOSS

- 97% of pets lost weight
- Significant weight reduction after just two weeks



BEGGING CONTROL

- Helped control begging in 82% of pets
- Improvement in begging score after just two weeks

REDUCTION OF ENERGY INTAKE

- Significantly lower voluntary caloric intake as compared to a leading competitor weight loss diet^{12*}

POST-WEIGHT LOSS MAINTENANCE

- Dogs were twenty times less likely to experience rebound weight gain if maintained on SATIETY SUPPORT WEIGHT MANAGEMENT as compared to those fed a regular maintenance diet post-weight loss¹⁴

* Under controlled conditions

REFERENCES

1. Henrotin Y *et al.* Nutraceuticals: Do they represent a new era in the management of osteoarthritis? – a narrative review from the lessons taken with five products. *Osteoarthritis Cartilage* 2011; 19(1): 1-21.
2. Colitti M *et al.* Transcriptome modification of weight blood cells after dietary administration of curcumin and non-steroidal anti-inflammatory drug in osteoarthritic affected dogs. *Vet Immunol Immunopathol* 2012; 147(3-4): 136-46.
3. Comblain F *et al.* Review of dietary supplements for the management of osteoarthritis in dogs in studies from 2004 to 2014. *J Vet Pharmacol Ther* 2016; 39(1): 1-15.
4. Gupta RC *et al.* Comparative therapeutic efficacy and safety of type-II collagen (UC-II), glucosamine and chondroitin in arthritic dogs: Pain evaluation by ground force plate. *J Anim Physiol Anim Nutr [Berl]* 2012; 96(5): 770-7.
5. Leong DJ *et al.* Green tea polyphenol treatment is chondroprotective, anti-inflammatory and palliative in a mouse posttraumatic osteoarthritis model. *Arthritis Res Ther* 2014; 16(6): 508.
6. Comblain F *et al.* Curcuminoids extract, hydrolyzed collagen and green tea extract synergistically inhibit inflammatory and catabolic mediators' synthesis by normal bovine and osteoarthritic human chondrocytes in monolayer. *PLoS One* 2015; 10(3): e0121654.
7. Comblain F *et al.* Identification of targets of a new nutritional mixture for osteoarthritis management composed by curcuminoids extract, hydrolyzed collagen and green tea extract. *PLoS One* 2016; 11(6): e0156902.
8. Comblain F *et al.* A randomized, double-blind, prospective placebo-controlled study of the efficacy of a diet supplemented with curcuminoids extract, hydrolyzed collagen and green tea extract in owner's dogs with osteoarthritis. *BMC Vet Res* 2017; 13(1): 395.
9. Internal data.
10. Flanagan J *et al.* Success of a weight loss plan for overweight dogs: The results of an international weight loss study. *PLoS One* 2017; 12(9): e0184199.
11. German AJ *et al.* A high protein high fibre diet improves weight loss in obese dogs. *Vet J* 2010; 183(3): 294-7.
12. Hours MA *et al.* Comparison of voluntary food intake and palatability of commercial weight loss diets in healthy dogs and cats. *BMC Vet Res* 2016; 12(1): 274.
13. Weber M *et al.* A high-protein, high-fiber diet designed for weight loss improves satiety in dogs. *J Vet Intern Med* 2007; 21(6): 1203-8.
14. German AJ *et al.* Long-term follow-up after weight management in obese dogs: the role of diet in preventing regain. *Vet J* 2012; 192(1): 65-70.
15. German AJ *et al.* Quality of life is reduced in obese dogs but improves after successful weight loss. *Vet J* 2012; 192(3): 428-34.



