

# DASUQUIN®

A New Breed of Joint Health Supplement®



Available in Soft Chews and Chewable Tablets With or Without MSM for Dogs and Sprinkle Capsules for Cats

**nutramax**  
LABORATORIES, INC.



NEW  
150 count  
Soft Chews!

Ask about our  
NEW 150 count size  
Soft Chews!

Available in Soft Chews and Chewable Tablets With or Without MSM for Dogs and Sprinkle Capsules for Cats

**Dasuquin for Small to Medium Dogs**  
For dogs under 60 lbs.  
ADMINISTRATION

Dog's Weight	Number of Soft Chews Per Day	
	Initial 4-6 Week Administration Period	Suggested Maintenance Level
10-29 lbs.	1	1 EOD*
30-59 lbs.	2	1

\*Every other day

Dog's Weight	Number of Tablets Per Day	
	Initial 4-6 Week Administration Period	Suggested Maintenance Level
Under 10 lbs.	1/2	1/2
10-29 lbs.	1	1/2
30-59 lbs.	2	1

(Please note administration recommendations vary slightly between the soft chews and chewable tablets for Small to Medium Dogs as the soft chews are not scored.)

**Dasuquin for Large Dogs**  
For dogs 60 lbs. and over  
ADMINISTRATION

Dog's Weight	Number of Soft Chews or Tablets Per Day	
	Initial 4-6 Week Administration Period	Suggested Maintenance Level
60-120 lbs.	2	1

The soft chews and chewable tablets may be fed directly or crumbled and mixed with the food.

The recommended initial administration period is 4-6 weeks; however, some dogs may respond in a shorter period of time. If desired, the number of Dasuquin soft chews or chewable tablets may then be reduced to a maintenance level.

U.S. Patent Nos. 5,587,363 and 6,797,289  
Additional Patent Pending

03-1034-04

# DASUQUIN®

- ✓ MOST COMPREHENSIVE JOINT HEALTH SUPPORT
- ✓ HIGH QUALITY RESEARCHED INGREDIENTS
- ✓ VETERINARY-EXCLUSIVE FORMULA
- ✓ ECONOMICAL
- ✓ ONLY JOINT SUPPLEMENT YOU NEED TO STOCK

## Dasuquin for Cats

Dasuquin for Cats capsules contain a natural chicken and tuna flavored powder. The powder has been evaluated for palatability with excellent results.

**RECOMMENDATION as a supplement for cats:**  
Initial Period - 4 to 6 weeks

Under 10 lbs. - 1 capsule sprinkled on food daily  
10 lbs. and over - 2 capsules sprinkled on food daily  
Capsules may be given once or twice a day depending on the cat's feeding schedule.

Once desired response is obtained, capsules may be administered every other day to maintain the cat.

Visit [Dasuquin.com](http://Dasuquin.com) for rebates and promotions.

To order, call Nutramax Laboratories, Inc. at 1-888-886-6442, or contact your local authorized Dasuquin distributor.



**nutramax**  
LABORATORIES, INC.

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Printed on recycled paper.

# DASUQUIN®

**ECONOMICAL**  
Dasuquin is economical for long-term maintenance.

Administration level may be lowered after a 4-6 week loading period for increased value. Many pets will need one or less tablet/capsule per day or every other day for maintenance.

The 84 count is perfect for initial trial while the 150 count is ideal for long-term use.

**SAFETY**  
Dasuquin has documented safety in both dogs and cats.

While sensitivity has been reported in a few dogs ingesting whole avocados, Dasuquin has demonstrated safety in dogs:

The ASU in Dasuquin has been evaluated in a safety study in dogs with no significant hematologic, hemostatic or biochemical changes noted.

Dasuquin has been evaluated in a safety study in cats with no significant hematologic, hemostatic, or biochemical changes noted.

## Situations Where Joint Supplementation May Be Beneficial

- Performance or working dogs actively training, competing or working (e.g., agility or flyball competitors, assistance dogs, police or military dogs, search and rescue dogs)
- Juvenile dogs with evidence of poor joint conformation that would predispose them to joint health concerns
- After joint surgery (e.g., articular fractures, joint instability, tendon or ligament repair)
- Management of current joint health issues
- Amputation patients
- Following an insult to a joint (e.g., sprains, hyperextension)
- Overweight patients
- Any active pet, especially large breed dogs

## BLADDER HEALTH SUPPORT

Dasuquin For Cats contains the same level of chondroitin sulfate found in Cosequin® For Cats, which has been used to help support bladder health. The bladder may use the low molecular weight chondroitin sulfate to support the layer protecting the bladder wall's inner lining.

# DASUQUIN®

## WHAT IS DASUQUIN?

Dasuquin is an advanced joint health formula and the #1 veterinarian recommended joint health supplement.\*

Dasuquin combines NMX1000® avocado/soybean unsaponifiables (ASU) and bioavailable decaffeinated green tea extract with Cosequin®'s FCHG49® glucosamine hydrochloride and TRH122® low molecular weight chondroitin sulfate to provide the most comprehensive joint health management formula available for dogs and cats.



## WHAT IS ASU?

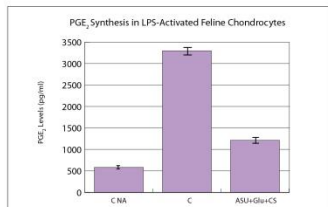
ASU is a potent compound that has been shown to affect joint function. Mechanisms shown *in vitro* include:

- ✓ Impacting pathway of cartilage breakdown by affecting many mediators including:
  - Lowering expression of cyclooxygenase-2 (COX-2) and production of prostaglandin E<sub>2</sub> (PGE<sub>2</sub>) (mediators of joint discomfort).
  - Inhibiting expression of TNF- $\alpha$  (tumor necrosis factor- $\alpha$ ) and IL-1 $\beta$  (interleukin-1 $\beta$ ) (destructive cytokines).
  - In contrast to what may be caused by some pharmaceutical agents, expression is not blocked completely. This is beneficial as low levels of these mediators are necessary for normal organ function.
- ✓ Potentiating activity of glucosamine and chondroitin sulfate.

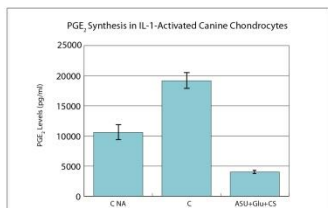
ASU is a naturally-obtained compound that has been shown *in vitro* to be **more potent** than chondroitin sulfate at reducing expression of certain mediators involved in cartilage breakdown.

## COMBINATION BENEFITS

In feline and canine chondrocytes, the combination of NMX1000 avocado/soybean unsaponifiables, FCHG49 glucosamine hydrochloride, and TRH122 low molecular weight chondroitin sulfate decreased PGE<sub>2</sub> production compared to activated control. (See graphs below)



C.NA=non-activated control. C=control cells activated by lipopolysaccharide (LPS). ASU=NMX1000 avocado/soybean unsaponifiables. Glu=FCHG49 glucosamine hydrochloride. CS=TRH122 low molecular weight chondroitin sulfate.

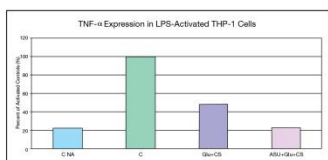


C.NA=non-activated control. C=control cells activated by interleukin-1 $\beta$  (IL-1 $\beta$ ). ASU=NMX1000 avocado/soybean unsaponifiables. Glu=FCHG49 glucosamine hydrochloride. CS=TRH122 low molecular weight chondroitin sulfate.

## EFFICACY

The addition of ASU to Cosequin's glucosamine hydrochloride and low molecular weight chondroitin sulfate complements their effects for more comprehensive joint health support.

ASU plus glucosamine hydrochloride and low molecular weight chondroitin sulfate has been shown more effective *in vitro* than the combination of glucosamine hydrochloride and chondroitin sulfate alone at decreasing expression of several mediators. (See graph below)



The combination of NMX1000 avocado/soybean unsaponifiables, FCHG49 glucosamine hydrochloride, and TRH122 low molecular weight chondroitin sulfate (ASU+Glu+CS) reduced the level of TNF- $\alpha$  expression to a level comparable to that of the non-activated control (C.NA) and was superior to the combination of glucosamine hydrochloride and chondroitin sulfate alone (Glu+CS). C=control cells activated by lipopolysaccharide (LPS).

- Dasuquin is a dual synergistic formula:
  - ✓ ASU + glucosamine
  - ✓ Low molecular weight chondroitin sulfate + glucosamine.
- Green tea extract, rich in antioxidants, have been shown to have a positive effect on cartilage health and on oxidative balance in the body.

## QUALITY

Dasuquin with key, researched ingredients provides a higher level of joint health support.



## ADVANCED FORMULA

	Dogs 60 – 120 lbs	Amount	Cats 10 lbs and over	Amount
<b>Avocado/Soybean Unsaponifiables (ASU) Powder</b>	Added for more comprehensive joint health support.	180 mg*	Added to help improve joint function and comfort levels.	50 mg*
<b>Glucosamine Hydrochloride</b>	Increased level to correspond to wider weight range.	1800 mg	The same level as found in Cosequin for Cats.	250 mg
<b>Sodium Chondroitin Sulfate (Low Molecular Weight)</b>	Lowered due to addition of ASU. Also, TRH122 chondroitin sulfate accumulates with continued usage, allowing for lower levels to be used long-term.	700 mg	To help support bladder health, the level is the same as found in Cosequin For Cats.	200 mg

Amounts shown at loading level of two tablets Dasuquin for Large Dogs or two capsules Dasuquin for Cats. Dasuquin for Dogs is available in a formula with and without MSM (methylsulfonylmethane), an organic source of sulfur, a compound used by cartilage. Some veterinarians recommend MSM to support joint health.

\*Sources: Among veterinary brands. Survey conducted in November 2009 of small animal veterinarians who recommended oral joint health supplements. Dasuquin® contains FCHG49® Glucosamine, TRH122® Sodium Chondroitin Sulfate, and NMX1000® Avocado/Soybean Unsaponifiables, Nutramax Laboratories® proprietary veterinary researched specifications.

\*Standardized to contain a minimum of 30% of avocado/soybean unsaponifiables.