

"Diagnosis, Prevention and Treatment of Urate Urolithiasis in Dalmatians"

(A historical review of 64 veterinary published references on Dalmatian Stone Disease)

Journal of American Veterinary Medicine Association, pp. 863-869, 1993

SUBJECT	YEAR OF PUBLISHED REPORT	BIBLIOGRAPHIC REFERENCE NO.
Unknown cause of stone disease	1976, 1986	1, 2
Not all HUA Dalmatians form urate stones	1965, 1966	3, 4
Urate-forming Dalmatians do not excrete more uric acid than those <i>not</i> stone-forming	1963, 1978	4, 5
Age of onset of Dalmatian stone forming	1970, 1972, 1977, 1978, 1984, 1986, 1993	4, 14, 20-25

The above subjects were arbitrarily selected to show how long they've been around within vet knowledge of Dalmatian Stone Disease. Note however these specific dates are picked up only from this particular review article. Later Dalmatian reports such as Dr. Osborne's 2009 stone disease textbook and 2005 JAVMA article on 20,000 Dalmatian stones continued to assert the cause of Dalmatian Stone Disease remains unknown. Earlier dates similarly may exist for some subjects demonstrating even longer times they've been known.

Some historically-significant statements in this review article are as follows but without the review article's pagination of references:

- ✓ *"Although homozygosity for the recessive gene responsible for high uric acid excretion predisposes Dalmatians to the formation of urate [stones], the exact cause of [stone] formation is not known.."*
- ✓ *"...not all Dalmatians, even those with high urinary urate excretion and urine urate concentration, actually form [urate stones.]"*
- ✓ *"...the cause(s) of urate [stone] formation are likely to be multifactorial."*
- ✓ *"The first step in the formation of a [urinary stone] involves the formation of a nidus of crystals...The mechanism by which the nidus is formed is not known, but currently there are 3 theories as to how it may develop...none of these theories has been completely accepted..."*
- ✓ *"The average age of Dalmatians during the first episode of urate [stones] is about 4! years for males and 5! years for females."*
- ✓ *"Approximately 97% of urate [stones]...are...from the bladder and urethra...[Stones] are more likely to lodge in the urethra of male dogs presumably because males have a longer, smaller diameter urethra, which has a limited ability to dilate..."*
- ✓ *"[Kidney stones]... common in human beings, are uncommon in dogs...only about 3% of all urate [stones]..."*
- ✓ *"Urate [crystals] cannot be used as an indication that [stones] have formed...and, in most dogs, will not lead to [stone] formation."*
- ✓ *"...the most accurate...is to perform a 24-hour urine collection and test the urine for urate content."*
- ✓ *"...there is a high rate of [recurrence] of urate [stones], 30 to 50% of the dogs with urate [stones] will have another episode."*