

Renal & Urinary Disorders

Canine Urinary Tract Infections



Urinary tract infections (UTIs) have been reported to affect 14% of dogs over their lifetimes. Although UTIs are not directly affected by diet, they may be associated with several diseases or conditions that are nutritionally responsive, such as struvite urolithiasis (one of the two most common types of urolithiasis), high body condition score, and diabetes mellitus.

Key Messages

- Most struvite uroliths in dogs occur secondarily to UTIs caused by urease-producing bacteria, such as *Staphylococcus pseudointermedius*. In combination with antibiotics (chosen based on culture and sensitivity), which are key to eliminate the UTI and prevent recurrence of uroliths, nutrition plays an important role in the dissolution of struvite uroliths.
- Feeding dogs to maintain ideal body condition may help reduce the risk of a UTI.
 - Most UTI cases are ascending infections caused by fecal bacteria. Since overweight and obese dogs may have excess skin folds in the urogenital region providing a hospitable environment for fecal bacteria, they may be at increased risk of developing a UTI.
 - Research has identified low body condition score as a risk factor for UTIs in cats. This may be due to diminished overall immune status in thin cats. Whether the same occurs in underweight dogs has not been established.
- Although data are conflicting, numerous risk factors for UTIs have been suggested, including the presence of other diseases in which nutritional management plays a role, such as diabetes mellitus.

Additional Resources

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Merkel, L. K., Lulich, J., Polzin, D., Ober, C., Westropp, J., & Sykes, J. (2017). Clinicopathological and microbiologic findings associated with emphysematous cystitis in 27 dogs. *Journal of the American Animal Hospital Association*, 53(6), 313–320. doi: 10.5326/JAAHA-MS-6722

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