



PRO PLAN[®]

GIVE YOUR CLIENTS THE ESSENTIAL
NUTRITION FOR LIFELONG RENAL
AND URINARY CARE



RENAL & URINARY
Nutrition
FOR LIFELONG CARE



Your Pet, Our Passion.[®]

Nutritional Support for Renal & Urinary Care: A Client-Friendly Guide for Clear Understanding

We know that nutrition can help support renal and urinary function, but convincing clients to switch to a specially formulated diet can be challenging. At PRO PLAN® we want to help you communicate the benefits of diet and hydration to help your clients see the value of specialised nutrition for renal and urinary care for themselves.

Renal diets can provide nutritional support to help favour better clinical outcomes in patients with Chronic Renal Insufficiency (CRI)^{1,2}

Each kidney contains thousands of filtration units called nephrons that remove waste substances through urine.

CRI is characterised by a progressive loss of functional nephrons and their ability to filter the blood¹.

Renal diets are formulated by limiting certain ingredients to reduce build-up in the body and workload on the kidneys^{1,2}.



Specialised diets can nutritionally support the treatment of a wide range of urinary issues

The prevalence of different types of urinary issues can vary among cats and dogs showing urinary signs^{3,4}.

Specialised diets promote urinary tract health by controlling the mineral content and pH balance of the urine.

Feline Idiopathic Cystitis (FIC)



55-65% of cats

Urethral plugs



10-15% of cats



Urolithiasis



15-25% of cats
18% of dogs

Urinary tract infections (UTIs)



2-10% of cats
40% of dogs

1. Bartges JW. 2012. Chronic kidney disease in dogs and cats. *Vet Clin North Am Small Anim Pract.* 42: 669-92

2. Elliott J, Rawlings JM, Markwell PJ, et al. 2000. Survival of cats with naturally occurring chronic renal failure: effect of dietary management. *J Small Anim Pract.* 41:235-42.

3. Osborne CA, Lulich JP, Kruger JM, Ulrich LK, Koehler LA. 2008. Analysis of 451,891 canine uroliths, feline uroliths, and feline urethral plugs from 1981 to 2007: perspectives from the Minnesota urolith center. *Vet Clin Small Anim.* 39: 183-97.

4. Kopečný L, Palm CA, Segev G, Westropp JL. 2021. Urolithiasis in dogs: Evaluation of trends in urolith composition and risk factors (2006-2018). *J Vet Intern Med.* May; 35(3):1406-1415.

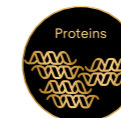
Demystifying Renal & Urinary Diets

RENAL & URINARY
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By explaining the role of each ingredient, we unravel the mysteries of specialised diets, enabling your clients to understand why these diets are crucial for supporting the health of their pets with renal and urinary issues.

Certain ingredients can impact renal health:

The breakdown of **protein** creates waste that the kidneys need to filter out.



Electrolytes, such as sodium and potassium help maintain fluid balance and muscle contraction.



Phosphorus can contribute to calcium deposits which worsen renal function.



Omega-3 fatty acids may help support natural anti-inflammatory response process.



Specialised diets formulated for renal health contain¹:

Restricted levels of high-quality protein that minimise the strain on the kidneys.

Reduced sodium and added potassium to help reduce blood pressure and muscle weakness.

Limited phosphorus to help support renal function.

Added Omega-3 may help reduce glomerular hypertension.

Certain factors can contribute to urinary tract issues:

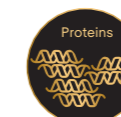
Alkaline urine favours the crystallisation of calcium and phosphate-containing uroliths.



Uroliths form when urine becomes saturated with **mineral compounds**.



Urease-producing bacteria can lead to struvite stone formation.



Bladder irritation causes mucus, which can cluster with crystals, gradually forming uroliths.



Specialised diets formulated for urinary health contain^{2,3}:

Components that create **mildly acidic urine** to help prevent and aid the dissolution of struvite uroliths.

Reduced levels of **magnesium, phosphorus, and calcium**.

Restricted levels of high-quality protein to help reduce bacterial substrate availability.

Added glycosaminoglycans (GAGs), omega-3 fatty acids, and antioxidants to help support the integrity of the urinary tract mucosa.

1. Ross SJ, Osborne CA, Kirk CA, et al. 2006. Clinical evaluation of dietary modification for treatment of spontaneous chronic kidney disease in cats. *Journal of the American Veterinary Medical Association.* 229(6): 949-957.

2. Osborne CA, Lulich JP, Unger LK, et al. Canine and feline urolithiasis: relationship of etiopathogenesis to treatment and prevention. In: *Canine and Feline Nephrology and Urology*, eds Osborne CA, Finco DR. Philadelphia: Lea and Febiger. 1995: 798-888.

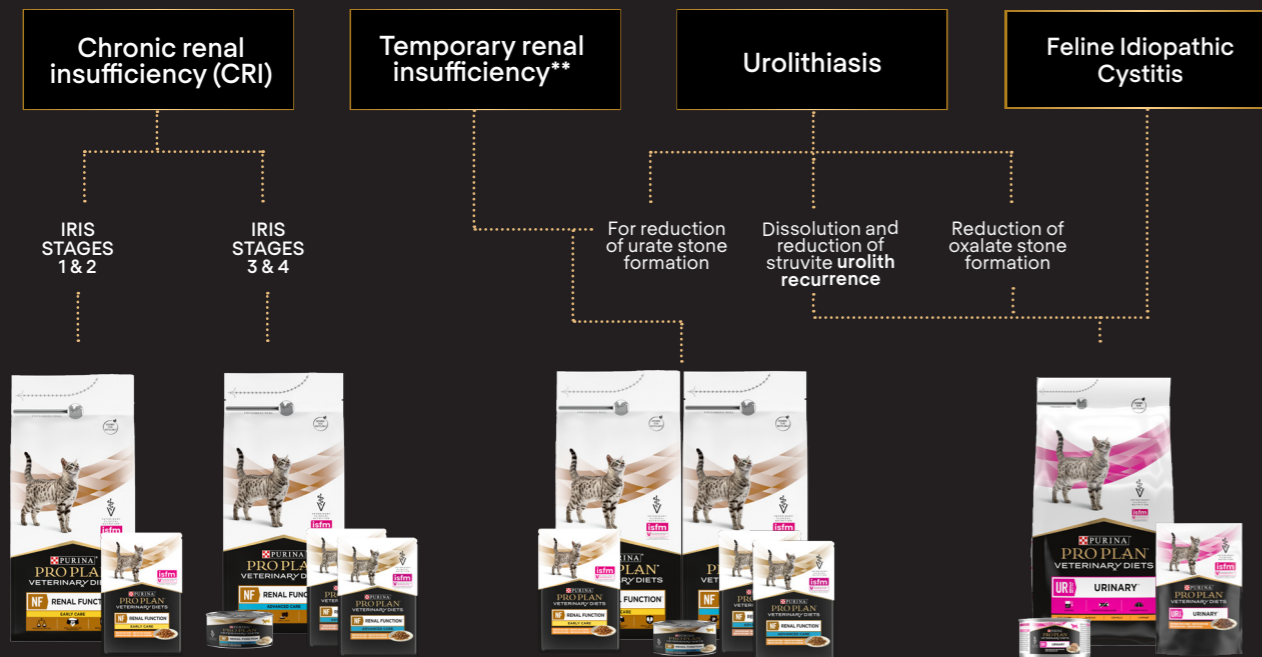
3. Torres-Henderson C, Bunkers J, Contreras ET, Cross E, Lappin MR. 2017. Use of PURINA® PRO PLAN® VETERINARY DIETS UR Urinary St/Ox to Dissolve Struvite Cystoliths. *Top Companion Anim Med.* 32(2):49-54.

PURINA® PRO PLAN® VETERINARY DIETS

Nutritional support for renal and urinary patients

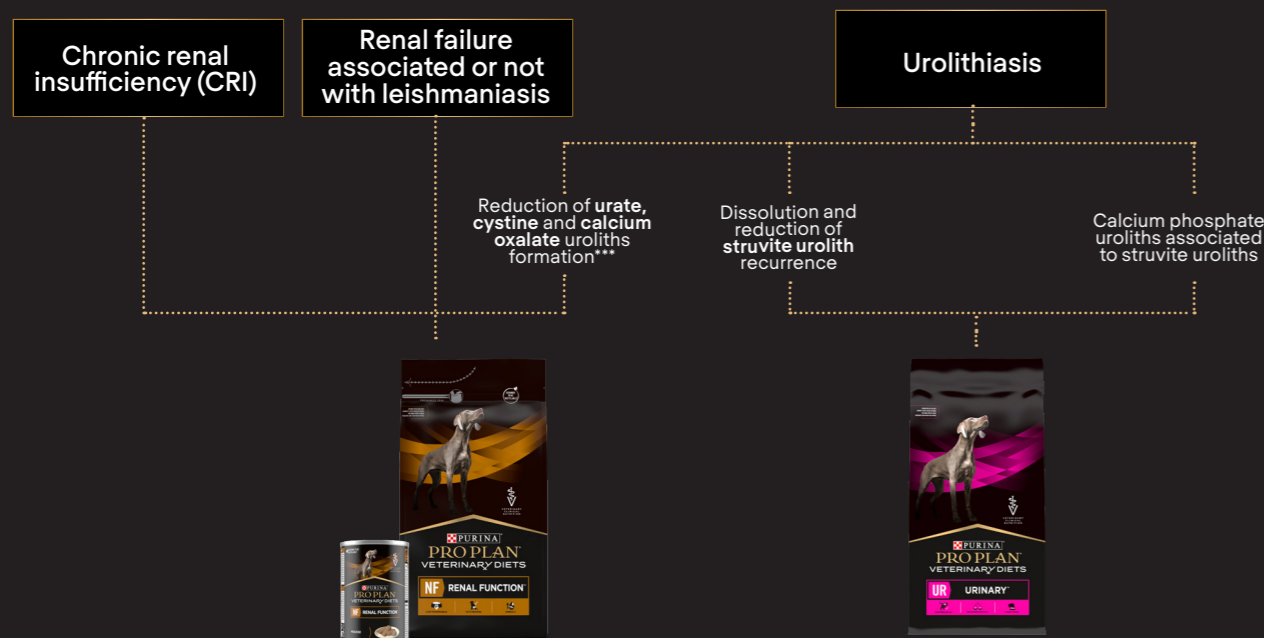
Find the most suitable product in our PURINA® PRO PLAN® VETERINARY DIETS range to provide nutritional support in cases of renal and urinary issues in cats and dogs*.

Feline nutritional support in case of renal and urinary issues



**The recommended period for use is two to four weeks.

Canine nutritional support in case of renal and urinary issues



***Dry formula only

PURINA® PRO PLAN®

Everyday nutrition for healthy cats

RENAL & URINARY
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PURINA® PRO PLAN® RENAL PLUS offers a selection of maintenance diets designed with a variety of flavours and formulated with specific ingredients to actively support kidney function throughout a cat's lifespan.

Complete dry pet food for adult healthy cats to support healthy kidney function



Encouraging feline hydration

Cats are poor drinkers compared to dogs, and ensuring adequate water intake can be a constant challenge. There are several simple ways you can recommend to your clients to encourage increased water intake:

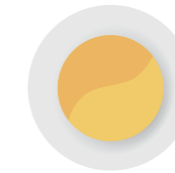
CLEAN AND FRESH WATER

Some cats prefer running water, so water fountains or a dripping tap can help.



NUTRIENT-ENRICHED WATER

PURINA® PRO PLAN® Hydra Care™ can help increase cats' water intake.



WET DIETS & MIXED FEEDING

Increases enjoyment, variety and provides extra moisture which leads to better hydration¹.



Recommend PURINA® PRO PLAN® Hydra Care™ to help your feline patients increase total water intake and promote hydration*.



* Compared to cats consuming only water in addition to dry feeding. Cats must consume at least 25 ml/kg of bodyweight daily for benefit.

**for each 2kg of bodyweight

*Please note that all indications for PRO PLAN Veterinary Diets mentioned are for the dietary support of cats and dogs with the listed condition and do not preclude appropriate medical management. The veterinary diets should be used under veterinary supervision.

1. Greco D, Xu H, Zanghi B, et al. 2014. The effect of feeding inversely proportional amounts of dry versus canned food on water consumption, hydration and urinary parameters. WSAVA Proceedings, 39

Hydration goes hand-in-hand with nutrition

Adequate water intake helps to^{1,2}:



Flush the urinary system

Water helps maintain a healthy blood flow to the kidneys to flush out waste through urine.



Promote urine dilution

The more diluted the urine, the lower the risk of crystals and proteins forming stones and plugs.



Balances electrolytes

Water can help maintain the balance of electrolytes in the blood.

Help hydration conversations flow with the new PRO PLAN® Water Intake Calculator



Asking your clients how much water their pets are drinking, can serve as an excellent starting point to raise awareness regarding urinary health and the importance of adequate hydration.

Share the PRO PLAN® Water Intake Calculator with your clients to easily find out the recommended water intake their pet's should drink on a daily basis and much more:



Recommended daily water consumption.



Refreshing tips to increase water intake.



Recognising the significance of keeping their pet well-hydrated.

[Click here to start](#)

1. Queau Y. 2019. Nutritional management of urolithiasis. *Veterinary Clinics of North America: Small Animal Practice*, 49, 175-186.

2. Carlson GP. 1997. Fluid, electrolyte, and acid-base balance. In J. Kaneko, J. Harvey, & M. Bruss (Eds.), *Clinical biochemistry of domestic animals* (5th ed., pp. 485-516). doi: 10.1016/B978-012396305-5/50019-1

PURINA

VetCenter

Want to keep learning about renal & urinary health?

Master nutrition conversations with your clients by joining our **PURINA® Learning Journey**, now with the new **Renal & Urinary Care** module.

Together, we can help you expand your knowledge and take the lead in renal & urinary nutritional support and much more!

Your learning journey at a glance

Module 1. Fundamentals of Pet Nutrition

Module 2. Nutritional Assessment

Module 3. Conversations with Pet Parents

Module 4. Renal & Urinary Care

Check out the content of the new module:



Dietary management of CRI



Scientific insights on renal health



How to communicate with pet parents

Renal Care



Fundamentals of urinary health



Nutrition and urinary tract health



Strategies for Feline LUTD

Urinary Care



Water needs in pets



Encouraging water intake



Certificate awarded

Hydration in pets



 **PURINA®**

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PURINA® PRO PLAN®.
FOR VETS. AND FOR OUR LOVE OF PETS.



RENAL & URINARY
Nutrition
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Please contact your PURINA® representative
or visit www.purina.com/vetcenter for more information