FELINE HEALTH

Functional Health — Chronic Kidney Disease in Cats

A Longevity-Focused, Functional Approach by Dr. Kevin Toman, The Longevity Vet

Why CKD Deserves a Different Conversation

Chronic kidney disease (CKD) is the **most common chronic disease of aging cats**—and one of the most misunderstood. Traditional approaches focus on late-stage crisis management, but functional medicine offers a fundamentally different paradigm.

What matters most is not simply whether a cat has CKD, but rather how we approach detection, monitoring, and intervention across the disease trajectory.

Early Detection Timing

Identifying disease before 75% of kidney function is lost

Multi-System Management

Addressing inflammation, blood pressure, protein loss, and nutrition

Longitudinal Tracking

Monitoring biomarkers and trends over time

CKD is progressive — but the **slope of progression is highly modifiable** through strategic intervention.

FRAMEWORK

The 3 Core Goals

Goal 1

Clarify What Matters Most Right Now

Understanding disease stage, progression risk, and current functional status to prioritize interventions effectively

Goal 2

Determine the Next Best Test

Selecting appropriate biomarkers and diagnostic tools to guide decision-making without over-testing

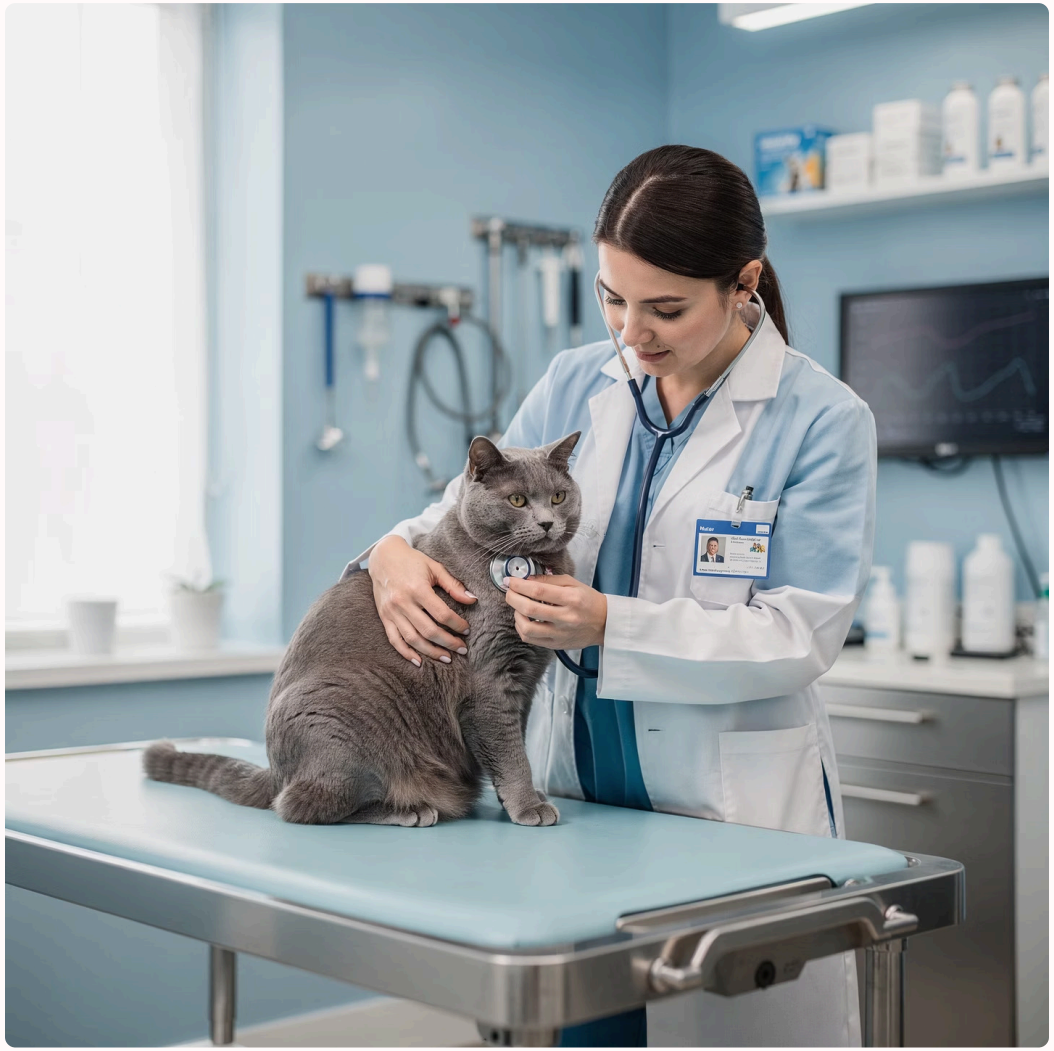
Goal 3

Choose the Most Appropriate Next Step

Implementing evidence-based therapies—dietary, supplemental, or pharmaceutical—tailored to the individual cat

This worksheet is a **decision-support tool**, not a diagnosis. It empowers veterinarians and informed cat owners to make thoughtful, longevity-focused choices at each stage of the CKD journey.

Understanding CKD Prevalence and Impact



30%

Cats Over Age 10

Show evidence of chronic kidney disease

50-80%

Cats Over Age 15

Are affected by some degree of CKD

Many cats with **early-stage CKD live years longer than expected** with thoughtful, proactive care. The key differentiator is not the diagnosis itself, but the timing of detection and quality of ongoing management.

Early detection and functional management consistently outperform late, crisis-based intervention across all outcome metrics.

IRIS STAGING

The Framework That Guides Strategy

The International Renal Interest Society (IRIS) staging system provides the clinical framework for CKD management. However, **Functional Health focuses on trajectory, not just stage**—the rate of progression matters as much as the current classification.

Stage 1: Earliest Opportunity

Normal creatinine with abnormal urine concentration, SDMA, or proteinuria. **Greatest opportunity for longevity gains.** Most cats are asymptomatic and kidney-protective strategies are maximally effective.

Stage 2: Strategic Intervention

Mild azotemia, often asymptomatic. Ideal stage for anti-inflammatory and renal-protective strategies. Intervention at this stage can significantly slow disease progression.

Stage 3: Active Management

Moderate renal insufficiency with clinical signs emerging. Primary goals: slow decline, preserve appetite, maintain hydration and weight. Medication becomes more commonly indicated.

Stage 4: Quality of Life Focus

Advanced renal failure with significant clinical signs. Goals shift toward comfort, symptom relief, and maintaining quality of life through palliative and supportive care.

Functional Biomarkers: Seeing CKD Early

Traditional bloodwork detects CKD **late**—often after 65-75% of kidney function is already lost. Functional Health focuses on **renal reserve and trend detection** to identify disease much earlier in its course.

> Urine testing in cats is not optional. It is foundational to early CKD detection and risk stratification.

How Early Can CKD Be Detected?

Test	Function Lost	Clinical Meaning
Urine Specific Gravity	20–30%	Earliest warning sign of concentrating ability loss
Proteinuria (UPC)	~30%	Accelerates glomerular damage and progression
SDMA	25–40%	Early blood marker, less affected by muscle mass
Cystatin-C	30–40%	Emerging early GFR marker, research-validated
Creatinine	65–75%	Late diagnosis, traditional standard marker
BUN	70–75%	Late, nonspecific, affected by hydration and diet

⚠ CRITICAL

Mandatory Risk Factors and Rule-Outs

Every cat with suspected or confirmed CKD must be comprehensively evaluated for concurrent conditions that accelerate kidney disease or complicate management. These are not optional assessments—they are **mandatory components of functional CKD care**.

Hypertension

Common, silent, and profoundly destructive. Accelerates renal decline and increases risk of retinal detachment, stroke, and cardiac remodeling. Requires proper feline measurement technique with appropriate cuff sizing and acclimation.

Heart Disease (Especially HCM)

Cardiac output directly affects renal perfusion. CKD promotes hypertension and cardiac remodeling, creating a vicious cycle. The heart-kidney axis must be managed as an integrated system, not separate organs.

Dental Disease

Chronic oral inflammation increases systemic inflammatory burden throughout the body. Proven contributor to CKD progression through inflammatory mediators. Dental health is kidney health.

Hyperthyroidism

Masks underlying CKD by artificially increasing glomerular filtration rate. Treatment often reveals previously hidden kidney disease. Must be addressed concurrently with careful monitoring of renal function during therapy.

Strategic Interventions for Longevity

Functional CKD care prioritizes **anti-inflammatory and anti-fibrotic strategies** that address root causes rather than simply managing symptoms. Interventions should be strategic, biomarker-guided, and tailored to individual disease stage and progression risk.

Fish Oil — Foundational

Reduces renal inflammation, slows glomerular fibrosis, supports cardiovascular health, and may reduce proteinuria. Use high-quality, purified marine sources at cat-appropriate doses. First-line for nearly all CKD cats.

ACE Inhibitors / ARBs

Reduce intraglomerular pressure, slow progression, and improve long-term outcomes. Indicated for proteinuria, hypertension, and glomerular protection. Monitoring is essential to balance benefits with potential side effects.

Modern Dietary Thinking

Adequate high-biologic-value protein, weight and muscle maintenance, moderate phosphorus control, high moisture intake, and excellent palatability. Protein **quality** matters more than quantity. A cat that maintains weight and appetite lives longer.

Emerging Therapy: Rapamycin is a potent anti-inflammatory and anti-fibrotic agent currently under study at two U.S. veterinary schools for feline kidney and heart disease. It represents a next-generation longevity option when used thoughtfully with appropriate monitoring, though it is not yet standard of care.

ACTION PATHWAY

Early Detection and Intervention Protocol

For cats ≥7 years of age or any age with CKD risk factors, follow this systematic approach to early detection and strategic intervention. Each step builds upon the previous to create a comprehensive functional health assessment.

Step 1: Urinalysis

USG ≥1.035 → monitor annually. USG <1.035 → proceed to protein assessment. This is the earliest detectable change in most cats.

Step 2: Urine Protein Assessment

If negative → continue evaluation. If positive → obtain UPC (urine protein:creatinine ratio) and measure blood pressure immediately.

Step 3: Blood Biomarkers

SDMA ± cystatin-C for early detection. Establish BUN/creatinine baseline for longitudinal tracking and trend analysis.

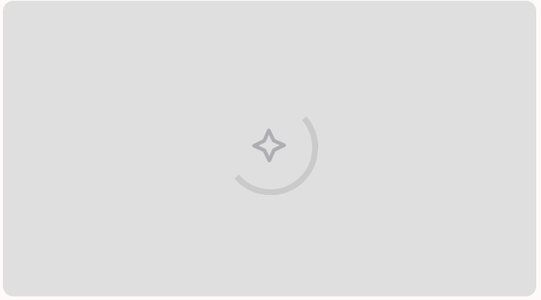
Step 4: Mandatory Rule-Outs

Blood pressure measurement, total T4 (thyroid), cardiac assessment (auscultation ± biomarkers), and comprehensive dental examination.

Step 5: Stage and Create Functional Plan

Assign IRIS stage. Optimize diet, initiate fish oil as first-line therapy, add ACE inhibitor if proteinuric or hypertensive, and establish biomarker tracking schedule (every 3–6 months).

CKD Is Not a Death Sentence



Early-detected cats often live many additional high-quality years with proper management. Progression can be slowed dramatically through strategic intervention, and quality of life is usually excellent when care is thoughtfully implemented.

The most important variable is **how early CKD is recognized and how thoughtfully it is managed over time**.

When to Seek Advanced Support

A Pet Longevity Consult is appropriate when:

- Multiple systems are involved (kidney + heart + blood pressure)
- Proteinuria or hypertension is present
- Medication decisions feel complex or unclear
- You want a comprehensive, long-term, prioritized plan

> *"Cats are quiet sufferers and brilliant compensators. Functional medicine allows us to listen **before the crisis**, intervene **before damage is advanced**, and protect what matters most: Time, Comfort, and Dignity."*
>
> — Dr. Kevin Toman, The Longevity Vet

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