

C-Reactive Protein (CRP) Concentration

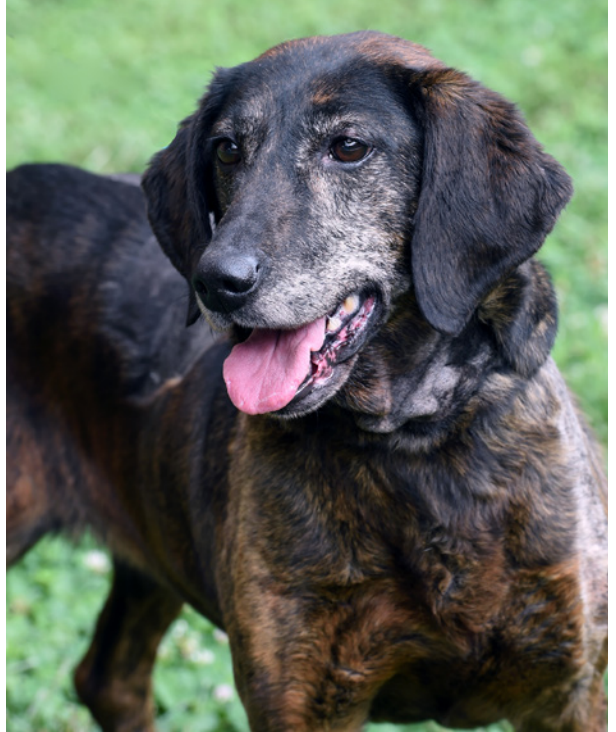
CLINICAL PATHOLOGY SERVICE

The University of Tennessee College of Veterinary Medicine (UTCVM) Clinical Pathology Laboratory now offers a **plasma biochemistry test** that is a **useful plasma biomarker of inflammation in dogs: C-reactive protein (CRP)**. CRP is routinely included on the Small Animal General Chemistry Panel and the Small Animal Panel with Electrolytes. CRP is also available as an individually orderable test. **CRP is measured using heparinized plasma.**

CRP, an acute-phase protein produced in the liver, is a sensitive marker of acute inflammation that has shown promise in many clinical and research applications. Clinically, it is probably most useful as a means of detecting systemic inflammation when conventional markers of inflammation, such as the leukogram or globulins, are within normal limits. CRP is also useful for monitoring response to therapy – for example, in dogs being treated for immune-mediated or infectious disease, pancreatitis, or cancer.

CRP is expressed at very low levels in health and increases rapidly, and often dramatically (well over 10-fold), in response to inflammatory stimuli. CRP concentration does not necessarily correlate well with disease severity, but concentration within reference limits may nonetheless guide duration of treatment – for example, when normalization of CRP was used to guide antibiotic therapy in dogs with bacterial pneumonia, treatment duration was significantly decreased without increasing the number of relapses (Viitanen et al, 2017).

The UTCVM Clinical Pathology Laboratory measures CRP using an automated turbidimetric immunoassay that utilizes canine-specific reagent antibodies (Canine CRP Assay, Gentian Diagnostics AS, Norway). Rigorous validation of this assay has demonstrated good analytical performance at medically important CRP concentrations. In clinically healthy dogs, CRP is typically < 10 mg/L (Hillström et al, 2014).



REFERENCES:

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