

# Diagnosis and Monitoring of Hyperthyroidism in Cats

Hyperthyroidism results from over production of thyroid hormones and affects older cats, typically over 10 years of age. Hyperthyroidism is a multisystemic disorder and evaluation of other organ systems is usually warranted when performing diagnostic or monitoring tests.

## FELINE BASIC THYROID MONITORING PROFILE

This profile may be used for initial diagnosis of hyperthyroidism or monitoring cats on treatment who are stable and have been receiving treatment for more than 4 months.

Included in this panel are Total T4, ALT, ALP and creatinine. This allows for monitoring of thyroid function with basic assessment of the liver and kidney. Some degree of elevation in hepatic enzymes is expected, however, if there are severe or worsening increases in hepatic enzymes, further assessment of hepatic parameters is advised to screen for a concurrent hepatopathy or an adverse response to medication (present in approximately 2% of cats being treated with antithyroid drugs).

Creatinine provides a rough assessment of GFR. As hyperthyroidism is a disease of older cats, renal compromise is not unexpected. Treatment for hyperthyroidism may also unmask previous subclinical renal disease. Markedly elevated creatinine or gradually increasing creatinine concentrations would indicate a need for additional evaluation of renal function.

## FELINE COMPLICATED THYROID PROFILE

The additional parameters included in this profile, as compared to the basic thyroid monitoring profile, allow for better assessment of multisystemic disease, in addition to screening for adverse effects arising from antithyroid medication. Clinically significant adverse effects are most likely to occur within the first three months of treatment and may include serious haematological complications such as neutropenia, thrombocytopenia and immune mediated haemolytic anaemia, and a hepatopathy.

This panel is also suitable for ongoing management of hyperthyroid patients with concurrent renal disease. Serial monitoring of creatinine, P, K and quantification of urine protein assist with identifying and monitoring existing and worsening renal disease so that antithyroid medication can be tailored to suit the changing needs of the patient.