

There are many options and combinations of tests that can be used to evaluate thyroid function in veterinary species. Below are our current recommended screening tests and panels that will successfully characterize thyroid disease in most patients. General interpretive comments are provided with T4 and thyroid panel results. Please do not hesitate to contact TVMDL if you have questions on the most appropriate thyroid tests.

Canine Thyroid Testing

Total T4 (T4)

T4 alone is the initial screening test for hypothyroidism and is often included in general health and geriatric panels. In the vast majority of cases, T4 is also appropriate for therapeutic drug monitoring in dogs already diagnosed with hypothyroidism.

Canine Basic Thyroid Panel

Total T4 (T4)

Thyroid Stimulating Hormone (TSH)

Free T4 (FT4)

This panel can often differentiate dogs with true hypothyroidism from dogs with low screening T4 values due to non-thyroid illness or drug administration. If there are clinical signs of hypothyroidism and the T4 was normal or high, the Canine Basic Thyroid Panel may provide clarification; however, in some cases the Canine Comprehensive Thyroid Panel (see below) may be more appropriate.

Canine Comprehensive Thyroid Panel

Total T3 (T3)

Total T4 (T4)

Thyroid Stimulating Hormone (TSH)

Free T4 by Equilibrium Dialysis (FT4-ED)

Thyroglobulin Autoantibody (TgAA)

This panel would be ideal for dogs with clinical signs of hypothyroidism but unclear T4 or Canine Basic Thyroid Panel results. In addition, this test may be recommended with certain patterns found on the Canine Basic Thyroid Panels and T4 in conjunction with certain clinical signs (i.e. false elevations in T4 thought to be secondary to TgAA interferences).

Feline Thyroid Testing

Total T4 (T4)

T4 alone is an appropriate screening test for hyperthyroidism and is often included in general health and geriatric panels. In the vast majority of cases, T4 is also appropriate for therapeutic drug monitoring in cats already diagnosed with hyperthyroidism.

Feline Thyroid Panel

Total T3 (T3)

Total T4 (T4)

Free T4 by Equilibrium Dialysis (FT4-ED)

This panel would aid in the diagnosis of feline hyperthyroidism in cats with clinical signs of hyperthyroidism but normal or low T4. In some cats with signs of hyperthyroidism T3 and FT4-ED will increase above the reference range first.

Equine Thyroid Testing

Equine Thyroid Panel

Total T3 (T3)

Total T4 (T4)

In general, hypothyroidism is rare in horses. Evaluation of T3 and T4 can provide valuable information on thyroid function during times of euthyroid sick syndrome and true thyroid disease. Medications known to affect thyroid test (i.e. phenylbutazone or corticosteroids) should be discontinued for 4 weeks before testing.

