

# SNAP® Total T<sub>4</sub> Testing Guide

## Canine Hypothyroidism

### Dynamic Range

0.5–7.0 µg/dL  
(6.4–90.0 nmol/L)

### SNAP® Total T<sub>4</sub> Results

Low	<1.0 µg/dL	(<13 nmol/L)
Low Normal	1.0–2.0 µg/dL	(13–26 nmol/L)
Normal	1.0–4.0 µg/dL	(13–51 nmol/L)
High	>4.0 µg/dL	(>51 nmol/L)
Therapeutic	2.1–5.4 µg/dL	(27–69 nmol/L)

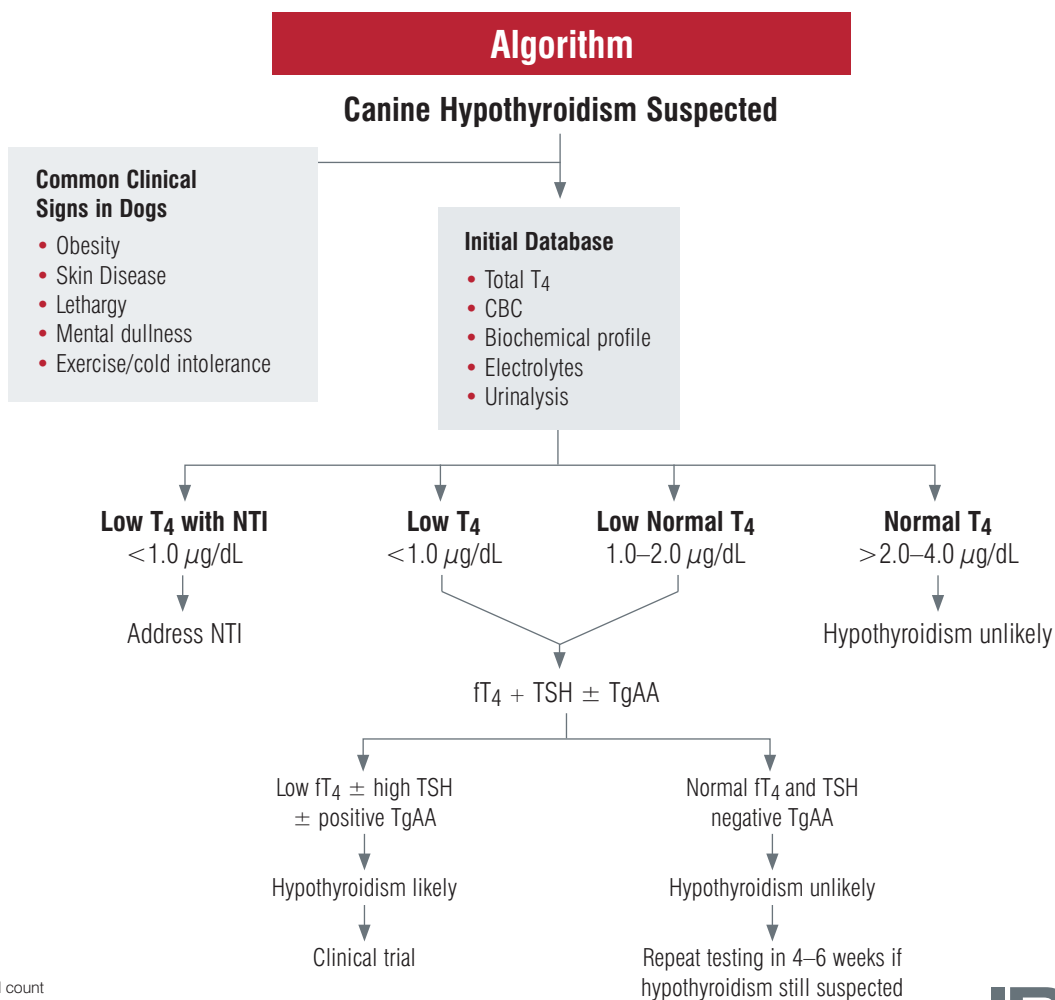
### Canine Screening

- Dogs with low total T<sub>4</sub> (T<sub>4</sub>) and evidence of nonthyroidal illness (NTI) should have NTI addressed.
- Dogs with T<sub>4</sub> results in the low normal range may be hypothyroid.
- In dogs with low or low normal T<sub>4</sub> results and with consistent clinical signs, consider free T<sub>4</sub> (fT<sub>4</sub>) and endogenous thyroid-stimulating hormone (TSH) and possibly thyroglobulin autoantibodies (TgAA) to aid in confirming hypothyroidism.

### Hypothyroidism Therapeutic Monitoring

For dogs on thyroid supplement, acceptable 4–6-hour post-pill T<sub>4</sub> values will generally fall in the upper end of the reference range or slightly above.

## Algorithm



CBC = Complete blood count  
**Note:** 1 µg/dL is equal to 12.87 nmol/L. A result that falls within the low normal range of the assay should be considered ambiguous.

# SNAP® Total T<sub>4</sub> Testing Guide

## Feline Hyperthyroidism

### Dynamic Range

0.5–7.0 µg/dL  
(6.4–90.0 nmol/L)

### SNAP® Total T<sub>4</sub> Results

Subnormal	<0.8 µg/dL	(<10 nmol/L)
Normal	0.8–4.7 µg/dL	(10–60 nmol/L)
Gray zone in old or symptomatic cats	2.3–4.7 µg/dL	(30–60 nmol/L)
Consistent with hyperthyroidism	>4.7 µg/dL	(>60 nmol/L)

### Feline Screening

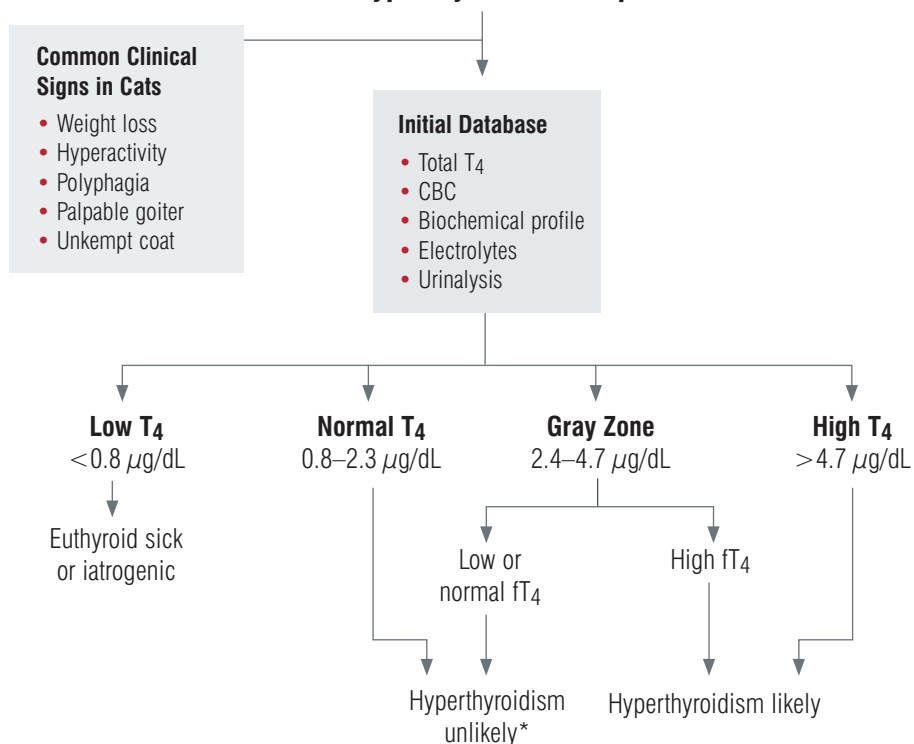
Cats with consistent clinical signs and total T<sub>4</sub> (T<sub>4</sub>) values in the borderline high range (gray zone) may have early hyperthyroidism or a concurrent nonthyroidal illness (NTI). In these cases, consider a free T<sub>4</sub> (fT<sub>4</sub>), a T<sub>3</sub> suppression test or radionuclide thyroid imaging to aid in confirming the diagnosis.

### Hypothyroidism Therapeutic Monitoring

Following treatment with methimazole, T<sub>4</sub> values will generally fall within the lower to midportion of the reference range.

## Algorithm

### Feline Hyperthyroidism Suspected



\*If strong suspicion of hyperthyroidism still exists, consider retesting in 4–6 weeks or a technetium scan.

CBC = Complete blood count  
**Note:** 1 µg/dL is equal to 12.87 nmol/L. A result that falls within the gray zone of the assay should be considered ambiguous.

# SNAP<sup>®</sup> Total T<sub>4</sub> Testing Guide

## Equine Hypothyroidism

### Dynamic Range

0.5–7.0  $\mu\text{g/dL}$   
(6.4–90.0 nmol/L)

### SNAP<sup>®</sup> Total T<sub>4</sub> Results

Low	< 1.0 $\mu\text{g/dL}$	(< 13 nmol/L)
Normal	1.0–3.8 $\mu\text{g/dL}$	(13–49 nmol/L)
High	> 3.8 $\mu\text{g/dL}$	(> 49 nmol/L)

**Note:** 1  $\mu\text{g/dL}$  is equal to 12.87 nmol/L.