

THYROID DISORDERS TESTING



INDICATIONS FOR TESTING

- Increased or decreased metabolism (heat or cold intolerance, weight loss or gain, depression, anxiety, etc.)
- Family history of autoimmune thyroiditis
- Goiter on physical exam

ORDER
Thyroid Stimulating Hormone with Reflex to Free Thyroxine

Low TSH- Suggests hyperthyroidism

High TSH- Suggests hypothyroidism

Normal TSH and free T4

Thyroid disease unlikely

• Primary hypothyroidism
• Thyroid ablation removal
• Euthyroid sick syndrome
• Transient thyroiditis

Low free T4

• Central hypothyroidism
• Severe illness

Normal free T4

• Euthyroid sick syndrome
• Subclinical hyperthyroidism
• Drug interference

ORDER
Triiodothyronine, Total (Total T3) OR Free T3

• Thyroid hormone resistance
• TSH resistance
• TSH secreting adenoma

Low free T4

High free T4

High free T4

Hyperthyroidism

Normal
Hyperthyroidism unlikely

High
T3 hyperthyroidism

• Subclinical hypothyroidism
• Euthyroid sick syndrome
• Transient thyroiditis
• Autoimmune thyroiditis

Normal free T4

ORDER

- Thyroid Stimulating Immunoglobulin (TSI)
- Thyroid Peroxidase (TPO) Antibody
- Thyroid Stimulating Hormone Receptor Antibody (TRAb)

CONSIDER

- Thyroid Antibodies
- Triiodothyronine, Total (Total T3)
- Free T3

**TSI Ab+
TPO+
TRAb+**

- Clinical indications of Graves ophthalmologic disease present
- Diffuse thyroid gland enlargement

**TPO Ab-
TSI Ab-**

Graves disease

Probable Toxic nodule/s

Normal T3 → Hypothyroidism unlikely

Low T3 → T3 hypothyroidism

Positive antibodies → Autoimmune thyroid disease

Negative antibodies → Thyroid disease unlikely

Facilitate treatment decisions
CONSIDER
Radioiodine thyroid scan and % uptake