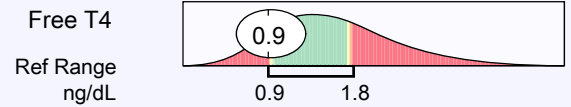
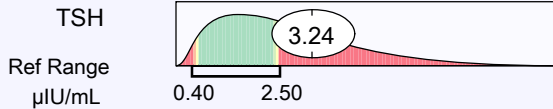




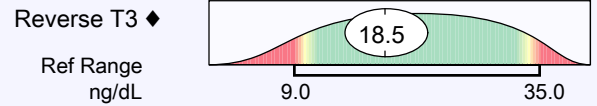
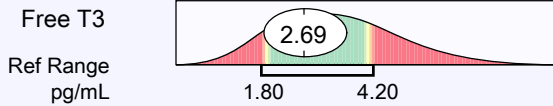
Patient: **SAMPLE  
PATIENT**

### Central Thyroid Regulation & Activity



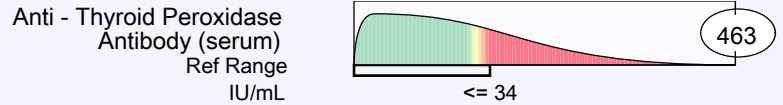
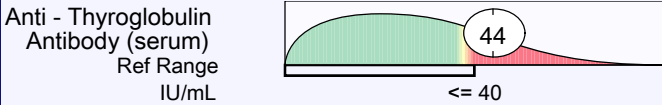
Histograms represent idealized data based upon large populations

### Peripheral Thyroid Function



Histograms represent idealized data based upon large populations

### Thyroid Auto Immunity



Histograms represent idealized data based upon large populations

The performance characteristics of all assays have been verified by Genova Diagnostics Inc. Assays are cleared by the U.S. Food and Drug Administration, unless otherwise noted with ♦.

Methodology: Chemiluminescent and RIA

## Thyroid Metabolism Summary

Thyroid hormone production is centrally regulated (hypothalamus-pituitary-thyroid axis) but thyroxine (T4) from the thyroid gland is peripherally transformed in liver and kidney cells into T3 and reverse T3 (rT3). Ultimately, the site of action for thyroid hormones is at cell nuclei throughout the body, where T3 is five times as potent as T4, and rT3 is completely inert. Thyroid dysfunction may occur even when the hypothalamus-pituitary-thyroid axis is operating adequately. Problems with peripheral conversion (reflected by T3 and rT3 levels) and/or with immune system interference in the form of auto-antibodies (reflected by anti-thyroglobulin and anti-thyroidal peroxidase antibodies) may still affect thyroid hormone production or its action at the cellular level. Thus to achieve a comprehensive assessment of thyroid adequacy, central regulation, peripheral conversion, and auto-immune involvement must be thoroughly evaluated.

### Thyroid Metabolism at a Glance

