## Comprehensive Thyroid Assessment



63 Zillicoa Street Asheville, NC 28801 © Genova Diagnostics

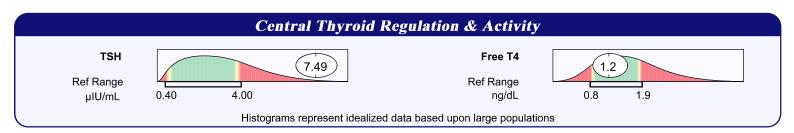
Patient: SAMPLE

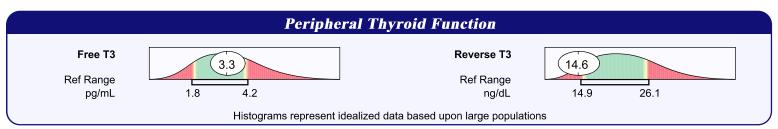
PATIENT

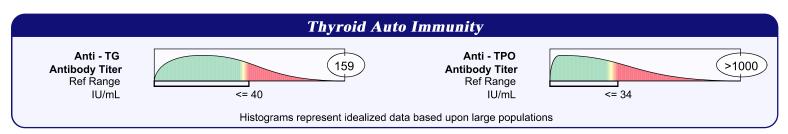
Age: 38 Sex: F **Order Number:** 

Completed: May 23, 2006 Received: May 19, 2006 Collected: May 11, 2006

MRN:







The test for Reverse T3 has been developed and its performance characteristics determined by GSDL, Inc. It has not been cleared or approved by the U.S. Food and Drug Administration

## 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.

