

WHAT DOES IT MEAN WHEN YOUR LAB RESULTS SHOW A TSH ABOVE 2.0?

Thyroid stimulating hormone (TSH) is the hormone produced by your pituitary gland to control the function of your thyroid gland. A high TSH means your pituitary senses that your thyroid is underactive. Many labs are misleading physicians by using outdated ranges of normal for TSH, thus preventing doctors from giving their patients the thyroid supplementation they need.

The National Health and Nutrition Examination Survey (NHANES III) demonstrated that the mean TSH in apparently euthyroid (normal, healthy) participants is 1.4 uIU/mL. Based upon the results of NHANES III, The National Academy for Clinical Biochemistry has recommended since 2002 that a serum TSH level between 0.5-2.0 uIU/mL be considered the optimal therapeutic target for replacement treatment of hypothyroidism.

There are several studies showing that any TSH above 2.5 is associated with metabolic syndrome, insulin resistance, elevated fasting triglycerides, elevated blood pressure, and higher body mass index. Here is one representative study:

Ruhla, et al. A high normal TSH is associated with the metabolic syndrome. Clinical Endocrinology, 2010 May.

This study found that subjects with a TSH in the upper “normal” range (2.5-4.5) had a significantly higher BMI, higher fasting triglycerides, and their likelihood for fulfilling the ATP III criteria of the metabolic syndrome was 1.7 fold increased. The study concluded that a TSH above 2.5 is associated with an unfavorable metabolic profile.