

THYROID PHYSIOLOGY

Making sense of thyroid hormone regulation

Release of thyroid hormone from the thyroid gland is controlled by thyroid-stimulating hormone (TSH), a hormone produced in the pituitary. TSH stimulates thyroid hormone production and release of thyroid hormone into the bloodstream.

Thyroid hormone controls its own production through negative feedback. Thyroid hormone acts at the pituitary to inhibit TSH production. Thus, when thyroid hormone levels are too high, TSH is suppressed and thyroid hormone production decreases. Similarly, if thyroid hormone levels are too low, TSH levels increase to stimulate more thyroid hormone. This helps maintain thyroid hormone levels in a stable range.

