THYROID INHIBITORS

These are drugs used to lower the functional capacity of the hyperactive thyroid gland and are used in thyrotoxicosis

Thyrotoxicosis is due to excessive secretion of thyroid hormones.

The two main causes for thyrotoxicosis are Graves' disease and toxic nodular goiter.

Graves' disease is an autoimmune disorder due to production of an IgG class of antibody called 'thyroid stimulating immunoglobulin.' It binds to the TSH receptor and causes long lasting stimulation of the thyroid cells.(TSH levels are low due to negative feedback. Feedback inhibition of TRH occurs with high levels of circulating thyroid hormone, which, in turn, decreases secretion of TSH.]

Toxic nodular goiter, which produces thyroid hormone independent of TSH, is less common

The goal of therapy is to decrease synthesis and/or release of additional hormone. This can be accomplished by removing part or all of the thyroid gland, by inhibiting synthesis of the hormones, or by blocking release of hormones from the follicle.

The thioamide antithyroid drugs and ionic inhibitors are also called *goitrogens* because, if given in excess, they cause enlargement of thyroid by feedback release of TSH.

