

## Graves' Disease Characteristics

Graves' disease is an autoimmune disease of the thyroid, which leads to hyperthyroidism. Classic findings include pretibial myxedema and exophthalmos. Patients display hyperthyroid symptoms (goiter, heat intolerance, weight loss, insomnia, hyperactivity, and palpitations) due to IgG antibodies which activate TSH receptors, leading to release of thyroid hormones.



PLAY PICMONIC

### Women 20-40 years old

[Women with 20-dollar-bill and 40oz](#)

Graves' disease occurs 7 times more often in women than in men, and typically presents in women between the ages of 20-40.

## Pathophysiology

### Anti-TSH Receptor Antibodies

[Anti-tissue Receptor Ant-tie-body](#)

Graves Disease is an autoimmune Type II hypersensitivity reaction where anti-TSH receptor autoantibodies (IgG) stimulate TSH receptors on the thyroid gland. Often, these anti-TSH antibodies are formed during stress (e.g. childbirth).

## Symptoms

### Ophthalmopathy

[Opal-wavy-eyes](#)

This is one of the most typical features of Graves' disease, where inflammation occurs in the periorbital fat and extraorbital muscles. Other complications include lid-lag (Von Graefe's sign) and upper eyelid retraction

### Exophthalmos

[Extruding-eyes](#)

Bulging or protrusion of the eyes (exophthalmos) occurs, giving patients with Graves' a characteristic look. Visible sclera in patients causes the appearance of a "stare."

### Hyperthyroidism

[Hiker-thigh-droid](#)

Patients with Graves' disease often complain of hyperthyroid symptoms such as goiter, heat intolerance, weight loss, insomnia, hyperactivity, palpitations, diarrhea, and sweating.

### Goiter

[Goiter-goat](#)

As there is autoimmune activity on the thyroid, diffuse thyromegaly takes place, forming what is called a goiter. Goiters are key for suspecting thyroid pathology.

### Pretibial Myxedema

[Praying-Tibetan Mixer-edamame](#)

This is an infiltrative dermatopathy, where a waxy, discolored induration of the skin occurs. Pretibial myxedema is highly associated with Graves' disease and occurs due to dermal fibroblasts.