

## Riedel Thyroiditis



PLAY PICMONIC

### Pathophysiology

#### Autoimmune

##### [Auto-in-moon](#)

Riedel thyroiditis is a rare form of autoimmune thyroiditis that can be a part of a systemic fibrosing disorder or an immunoglobulin G4 (IgG4) related disease.

#### IgG4

##### [\(IgG\) Gold-goblin \(4\) Fork](#)

IgG4 is found to be related to Riedel thyroiditis. Its level can be seen as elevated in the patient's blood.

#### Fibrous Invasion of Thyroid

##### [Fibrous-sacks Invading the Thigh-droid-city](#)

Riedel thyroiditis is a rare chronic inflammatory disease that is characterized by invasive fibrosis of the thyroid gland.

### Findings

#### Very Firm on Palpation

##### [Paw Palpating Stone](#)

During the physical examination, palpation may demonstrate a very firm or stony consistency. Riedel thyroiditis is also called iron-hard thyroiditis.

#### Nontender

##### [No Pain-bolts-sign](#)

Thyroid palpation on Riedel thyroiditis is non-tender, and a patient can experience painless thyroid enlargement.

#### Slowly Enlarging Mass

##### [Snail with Enlarging Mass](#)

Findings may include enlargement of the thyroid. It may develop slowly.

## Invades Local Structures

### [Invading Local Structures](#)

Fibrosis Riedel thyroiditis can extend to surroundings, which can cause airway compression. Patients may develop obstructive airway symptoms, such as hoarseness, dyspnea, and dysphagia.

## Hypothyroidism

### [Hippo-thigh-droid](#)

Hypothyroidism can be present in around 74% of patients with Riedel thyroiditis. It is defined as a high TSH level and low free T4.

## Histology

### Fibrous Tissue

#### [Tissue inside Fibrous-sacks](#)

Riedel thyroiditis is characterized by the replacement of normal thyroid parenchyma with fibrous tissues.

### Eosinophilic Infiltrate

#### [Eosinophilic-eagles](#)

Riedel thyroiditis can be seen in histology findings as a dense hyalinized matrix with scanty colloid and abundance of the eosinophilic cell infiltrate with no malignant or giant cells.

## Treatment

### Prednisone

#### [Prednisone-predator](#)

Prednisone is the most common therapy used to treat Riedel thyroiditis. It can reduce the mass size and the hardness of the thyroid.

### Tamoxifen

#### [Tomahawks-fan](#)

Tamoxifen is a selective estrogen receptor modulator (SERM). It acts by inducing tumor growth factor-beta (TGF- $\beta$ ), a potent growth inhibitor, and helps in inhibiting the proliferation of fibroblasts. As a result, a reduction of Riedel thyroiditis's mass size occurs.

### Surgery

#### [Surgeon-with-scalpel](#)

Surgery is indicated in situations when Riedel thyroiditis patients develop obstructive airway symptoms. It has a risk of causing hypoparathyroidism and a risk of recurrent laryngeal nerve damage.