

# Thyroid

## Indications for Surgery

### 1. Size

- Pressure
- Pain
- Difficulty Swallowing
- Difficulty breathing

### 2. Nodule with Cancer or Suspicion of Cancer

- Cold on thyroid scan
- Solid vs. Cystic
- Enlarging
- History of irradiation
- Family history of medullary carcinoma or multiple endocrine neoplasm syndrome
- Abnormal FNA results

### 3. Hyperthyroidism

## Types of Cancer

1. Papillar
2. Follicular
3. Medullary
4. Anaplastic

## Complications and Risks

### General

1. Blood clots (DVT/PE)
2. Pneumonia
3. Heart attack
4. Stroke
5. Bleeding
6. Infection

### Specific

1. Recurrent Laryngeal Nerve injury-hoarseness
2. Parathyroid injury-hypocalcemia (numbness, tingling, cramps)  
\*Need for lifelong calcium supplements
3. Local recurrence or metastasis if cancer

## Alternatives

1. Observation and close follow-up
2. Fine needle aspiration biopsy
3. Radiodine ablation
4. Excision

*Recurrent Laryngeal Nerve*

*Thyroid cartilage (Adam's apple)*

**Four parathyroid glands** regulate the amount of calcium in the blood. These glands sit close to the underside of the thyroid gland.

