Radiofrequency Ablation of Thyroid Nodules

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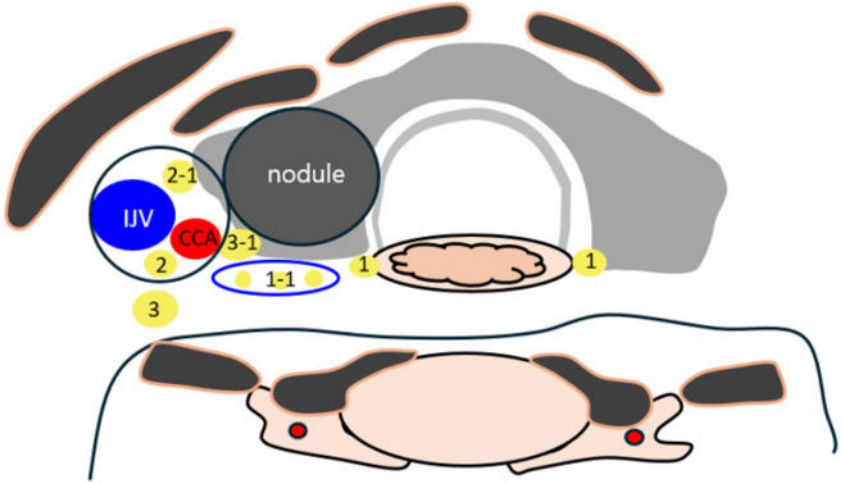
What is it?

- *Radiofrequency Ablation (RFA) of Thyroid Nodules*
- Minimally-invasive, outpatient alternative to thyroid surgery
- Safety and Efficacy has been documented; Thyroid specific CPT codes (60660) as of Jan 1, 2025



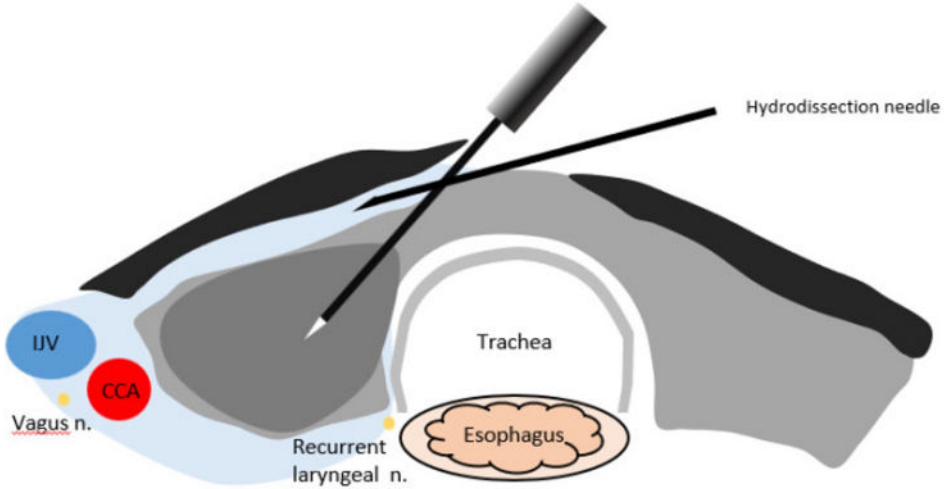
Top Indications

- Symptomatic benign nodules causing compressive or cosmetic problems
- Autonomously functioning thyroid nodules (AFTNs) with subclinical/overt hyperthyroidism
- Patients who refuse or are unsuitable for surgery (confirmed benign cytology)
- Nodules meeting size criteria (≥2–3 cm or >20 mL; very large lesions may need staged treatment)

These indications are supported by the Korean Society of Thyroid Radiology, the American Thyroid Association, and the European Thyroid Association consensus statements.

Benefits Over Surgery

- Outpatient procedure under local anesthesia – no general-anesthesia risks, no neck scar
- Preservation of thyroid function – most patients remain euthyroid, avoiding lifelong hormone replacement
- Lower complication rate (<5 % vs. higher rates of permanent nerve injury after surgery)
- Faster recovery, minimal postoperative pain, no hospital stay
- Better cosmetic and quality-of-life outcomes; higher patient-reported satisfaction
- Cost-effective (a



Future Directions

- Refined ultrasound criteria and standardized training within specialty training
- Advanced, adjustable electrodes for larger/irregular nodules in a single session
- Expanded indications: recurrent cancers, low-risk papillary micro-carcinomas, broader AFTN use
- Multicenter registries tracking long-term durability, QoL, and rare complications
- Continued improvement in cost-effectiveness, positioning RFA as the dominant outpatient therapy

References

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3. Sinclair CF, Baek JH, Hands KE, Hodak SP, Huber TC, Hussain I, Lang BH, et al. (2023). *General Principles for the Safe Performance, Training, and Adoption of Ablation Techniques for Benign Thyroid Nodules: An American Thyroid Association Statement*. Thyroid, 33(10), 1150-1170. https://doi.org/10.1089/thy.2023.0281