

THYROID IMAGING

Interpreting an RAI uptake and scan

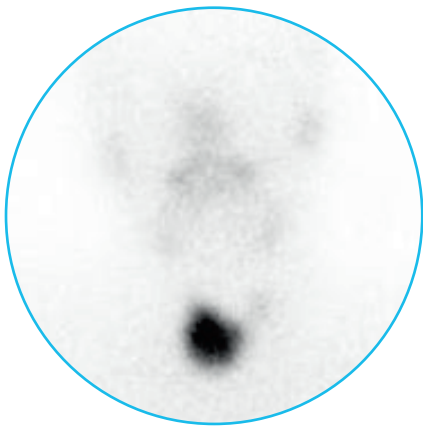
Radioiodine imaging has two parts: uptake which measures how much thyroid hormone is being produced, and the scan which shows which parts of the thyroid are overactive.

Normal uptake is 15–25% of the radiolabeled iodine at 24 hours. Increased uptake indicates the thyroid is producing excess thyroid hormone. Low uptake suggests damage to the thyroid as in thyroiditis, or suppressed thyroid function, as seen with exogenous thyroid hormone ingestion.

If uptake is increased, the scan can help determine the underlying cause.

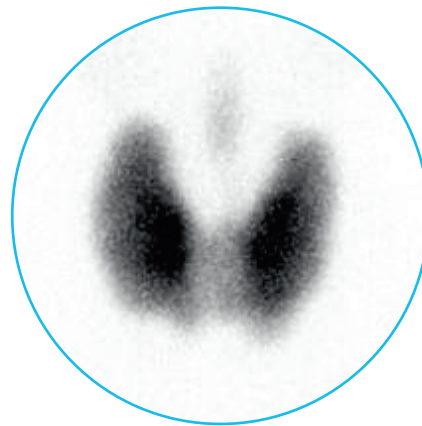
Focal uptake

is seen with a toxic or autonomous nodule:



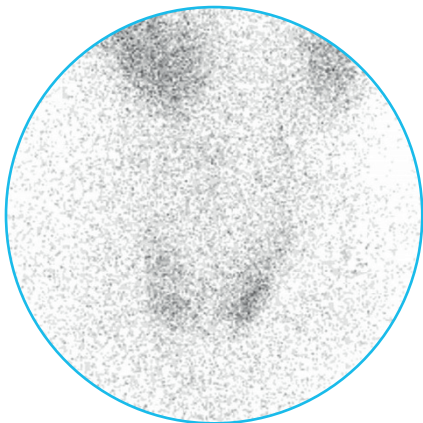
Diffuse uptake

is seen with diffuse hyperfunctioning thyroid, as seen in autoimmune hyperthyroidism:



Decreased uptake

is seen with thyroid damage or inflammation:



This test is important for determining the underlying cause of hyperthyroidism, and guiding you to the correct treatment.