

RADIOACTIVE IODINE (RADIOIODINE)

Iodine is essential to maintain proper thyroid function. It is used to make the thyroid hormones T4 and T3. The thyroid gland is the only tissue in the body which avidly takes up and holds onto iodine.

Radioiodine (I-131) is commonly used to treat certain thyroid diseases, including:

- Graves' disease causing HYPERthyroidism
- Toxic thyroid nodule(s) (either solitary or as part of a multinodular thyroid) causing HYPERthyroidism
- Thyroid cancer (following surgery)
- Rarely used to shrink large thyroids (goitres)

Radioiodine (I-131) is toxic to thyroid cells and destroys overactive cells. It is given in liquid or tablet form.

Side effects of radioiodine

I-131 may occasionally cause mild pain in the neck that can be treated with aspirin, ibuprofen or paracetamol. The RAI treatment may take up to several months to have its effect. About one third of people who receive radioiodine may develop HYPOthyroidism (underactive thyroid) after receiving radioiodine. This required thyroid hormone replacement with thyroxine (lifelong). About one third of people who receive radioiodine may require a second dose in order to adequately treat their hyperthyroidism.

Instructions for women

Women who are pregnant or breastfeeding should not have a diagnostic test using radioiodine (I-123) nor treatment with radioiodine (I-131). Women should not become pregnant within 6 months of receiving radioiodine to ensure thyroid levels are optimal prior to conception.

Instructions to reduce exposure to others after I-131 RAI treatment

Action	Duration (Days)
Sleep in a separate bed (~6 feet of separation) from another adult	1-11*
Delay return to work	1-5*
Maximize distance from children and pregnant women (6 feet)	1-5*
Limit time in public places	1-3*
Do not travel by airplane or public transportation	1-3*
Do not travel on a prolonged automobile trip with others	2-3
Maintain prudent distances from others (~6 feet)	2-3
Drink plenty of fluids	2-3
Do not prepare food for others	2-3

- Do not share utensils with others 2-3
- Sit to urinate and flush the toilet 2-3 times after use 2-3
- Sleep in a separate bed (~6 feet of separation) from pregnant partner, child or infant 6-23*
- *duration depends on dose of I-131 given
- *reproduced from www.thyroid.org