

**Department of Diagnostic Radiology and Nuclear Medicine
Rush University Medical Center**

**PATIENT INFORMATION SHEET
TREATMENT OF HYPERTHYROIDISM WITH RADIOACTIVE IODINE**

General Indications for the Procedure: Patients who have been diagnosed with hyperthyroidism (an overactive thyroid gland) may be treated with a radioactive isotope, iodine-131 (also called radioiodine).

Description of the Procedure: The patient swallows one or two capsules containing radioactive iodine. Once swallowed, the radioactive iodine is taken up and stored by the thyroid gland. Radioactive iodine stays in the thyroid gland and provides an internal radiation treatment that kills many thyroid cells, reducing thyroid over-activity.

Risks of the Procedure: There are certain complications associated with Radioiodine treatment of hyperthyroidism. Radioiodine occasionally causes painful swelling of the thyroid gland soon after therapy. This usually lasts only a few weeks. Most patients who are treated for hyperthyroidism with radioiodine eventually will develop hypothyroidism, a condition in which the thyroid gland does not produce enough thyroid hormone. Once the patient develops this condition, it will be necessary for the patient to take thyroid hormone pills daily for the rest of the patient's life. Occasionally, hyperthyroidism returns after treatment with radioiodine. In this case, additional radioiodine treatment may be given. There is a very slight increase in birth defects when pregnant women are treated with radioactive iodine. For this reason, women must not be pregnant when receiving this treatment, and they must not become pregnant for 6 months after receiving radioiodine. Some patients with hyperthyroidism due to Graves disease have swelling of tissue around their eyes. This condition frequently occurs before treatment of hyperthyroidism begins, but it can first occur or become worse after radioiodine treatment. Steroid medication may prevent this occasional worsening of swelling. There is a possibility that radioiodine may temporarily make hyperthyroidism worse. In rare cases, it may cause very severe hyperthyroidism, called thyroid crisis or thyroid storm, a condition that can be life threatening.

Alternatives to Treating Hyperthyroidism with Radioiodine: Other methods of treating hyperthyroidism are available, including medications and surgical removal of some or most of the thyroid gland. However, medications usually do not provide a permanent cure of hyperthyroidism, and surgery is associated with risks that include possible death.

Possible Complications of Refusing Procedure: Untreated hyperthyroidism can have very serious health consequences, even death.

Persons Performing the Procedure: The key portions of the procedure will be performed by an attending physician who is a member of the medical staff of Rush University Medical Center, or a resident or fellow in radiology or nuclear medicine who

will be observed and supervised by a member of the medical staff. Residents are licensed physicians in an approved residency program. Fellows are licensed physicians who have completed a residency in radiology and are in an approved post-residency training program. The parts of the procedures residents or fellows will perform will be based on their level of training and competence.