



HIGH DOSE RADIOIODINE (I-131) TREATMENT

RADIATION SAFETY EDUCATION





WHAT IS HIGH-DOSE RADIOIODINE TREATMENT?



High-dose I-131 therapy is a targeted nuclear medicine treatment primarily used for **differentiated thyroid cancer**. A high dose of **radioactive I-131** will be administered and selectively absorbed by thyroid cells (including cancerous ones), destroying them through beta radiation while minimizing damage to surrounding tissues.

IMPORTANT INFORMATION

HOW IS THE TREATMENT GIVEN?



You will **swallow** the radioactive I-131 capsule, which is **tasteless** and **odorless**.



No eating and drinking for the first hour after taking I-131; this allows time for the I-131 to be absorbed.

WHAT HAPPENS AFTER THE TREATMENT?



After the treatment, you will remain slightly radioactive for a period of time, including your **body fluids** and **excretions** (urine, stool, sweat, vomit, and saliva).



Therefore, you will need to follow **special safety** and **hygiene precautions** to avoid exposing others to radiation.

ISOLATION PRECAUTIONS



You will be placed in a special **isolation room - Ward 6D** for a few days.



This is because your body will emit radiation above the legal safety limit for the public.



Hospital staff will minimize contact but monitor you closely.

HOW LONG WILL THE RADIATION LAST?



The radioactivity of I-131 decreases by half every **8 days** (its “**half-life**”).



Your radiation level will be measured daily using a **ceiling-mounted detector**.

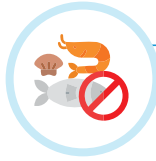


You can be discharged once the radiation level falls **below 50 $\mu\text{Sv/hr}$** at a distance of **1 meter**.



HIGH-DOSE RADIOIODINE PATIENT'S TO-DO LIST

BEFORE TREATMENT



Follow a low-iodine diet and avoid seafood and marine-based foods for at least **2 weeks**.



Stop taking thyroid hormone medication (L-thyroxine) for **1 month** before treatment date.



For female patients, pregnancy is an absolute contraindication for I-131 therapy.



For breastfeeding patients, stop breastfeeding at least **8 weeks** before treatment and not resumed until the next pregnancy.



In the interest of radiation protection for the doctor and staff, please discuss any concerns with the staff before receiving the I-131 treatment.

INPATIENT VISITATION

Visitation during your stay is discouraged, especially for pregnant women and young children. If an urgent visit is necessary:

- ✓ Visitation is allowed only **24 hours** after I-131 administration.
- ✓ Visitors are allowed only for brief periods, with a maximum time for any visitor is **30 minutes** per day at minimum **1 meter** distance away from you.

SCANNING



Before discharge, you will undergo a **SPECT/CT scan** to check how much I-131 your body has taken up.



HIGH-DOSE RADIOIODINE PATIENT'S TO-DO LIST

DURING ISOLATION (SINGLE ROOM)



For assistance, use the phone to contact the ward nurse.



There will be no housekeeping service during the stay.



Low-iodine meals will be served with disposable cutlery.



Do not leave the isolation room except in emergencies (e.g., fire).



A medical physicist will visit daily for radiation measurement.
Please lie on the bed to be measured by the ceiling-mounted detector.



Both male and female patients should sit while urinating to prevent spilling radioactive urine on the floor. If there is minor urine spillage on the floor, rinse it with water to flush off any I-131 stains. Flush the toilet bowl 2 times after each use.



Wash your hands each time after using the toilet to avoid contaminating door handles.



Use the toilet bowl or designated vomit bags if vomiting occurs.
If vomiting occurs elsewhere, call the ward nurse immediately.



Shower daily and drink at least 7 glasses of water per day to aid in I-131 excretion from the body through urine.



Segregate waste properly for infection control purposes:



Yellow bin

Clinical waste (e.g., diapers, sanitary pads, used tissues)



Black bin

Food waste, utensils, food containers, general plastic waste



You can bring old clothing to wear but the clothing worn during the stay will be considered as contaminated and must be washed separately or stored by yourself for 2 months before re-use.



Please bring 2 pairs of slippers or sandals to help prevent contamination.
Use the 1st pair inside the isolation room only. It will be disposed of after discharge.
Use the 2nd pair during scanning and upon discharge.



HIGH-DOSE RADIOIODINE PATIENT'S TO-DO LIST

ARE THERE ANY RESTRICTIONS AFTER DISCHARGE?

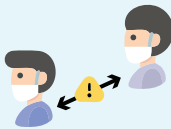
Follow these guidelines for **at least 1 week** from the treatment date.



Continue to isolate at home in a single room with a private bathroom to complete the **1 week of quarantine** (starting from the treatment date) with the applicable precautions stated above 'During isolation'.



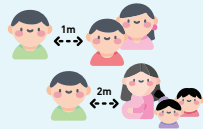
Try to postpone air travel until **1 month** after discharge. You may trigger sensitive radiation detectors at security checkpoints, as a small but measurable amount of I-131 could still be present in your body.



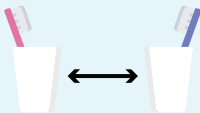
Travel home by private transport is strongly recommend. Sit diagonally from the driver to maximize distance.



Limit journey time in public transport and areas to **less than 2 hours** and stay as far away from others as possible.



Maintain a minimum distance of **1 meter** from adults, **2 meters** from pregnant women, and children under 10 years old.



Keep your toothbrush separated from others. Replace it **one week after** the treatment date, as radioactive saliva may contaminate it.



Do not share food or utensils with others. Use disposable eating utensils.



There are no restrictions on contact with animals or pets.



Avoid kissing and engaging in sexual intercourse.



Wash laundry separately, including:

- Bed sheets
- Pajamas
- Towels
- Underwear
- Washclothes
- Clothes with sweat, blood, or urine stains



Postpone conception plans and use reliable contraception for **at least 6 months** from the treatment date. Men are advised not to try for children (get their partners pregnant) for **4 months** following radioactive iodine treatment.

The Nuclear Medicine Centre is located at
Basement, Tower C

Operation Hours

Mondays-Fridays 8.30am - 5.30pm

Saturdays 8.30am - 12.30pm

Closed on Sundays and Public Holidays

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