

# Nuclear Medicine Centre

## 核子醫學中心



### What is Nuclear Medicine?

Nuclear Medicine is a medical specialty which uses radiopharmaceuticals (i.e. radioisotopes combined with pharmaceuticals) to diagnose or treat a variety of diseases, including many types of cancers, heart diseases and other abnormalities within the body. Nuclear Medicine is unique in documenting functional and molecular abnormalities in diseases, as well as anatomical or structural changes. It involves the administration of a radiopharmaceutical, which accumulates in the organ or area of body being examined, and the patient is imaged by a device called Gamma Camera. Nuclear medicine imaging procedures are noninvasive and usually painless to help diagnose medical conditions accurately and cost-effectively.



Gamma Camera

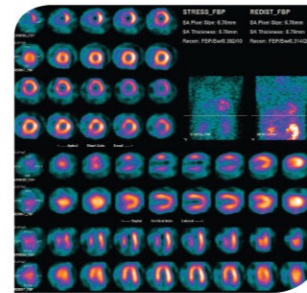
### Common Uses

The Hong Kong Baptist Hospital Nuclear Medicine Centre offers more than 60 different types of diagnostic nuclear medicine procedures to study the function and structure of a tissue, organ or system of the body. The followings are some of the common uses:

- To evaluate bones for cancer spread, fractures, infection and arthritis
- To visualize heart blood flow and function
- To determine presence or spread of cancer
- To analyze kidney function and urinary obstruction

But the eyes of the LORD are on those who fear Him,  
on those whose hope is in His unfailing love.  
【Psalm 33:18】

- To localize lymph nodes before surgery in breast cancer or melanoma
- To measure thyroid function and detect thyroid abnormalities
- To localize bleeding site in the bowel
- To localize hyperfunctioning parathyroid gland
- To locate the presence of infection



Stress and rest myocardial perfusion scintigraphy shows significantly reduced blood flow to heart muscle due to coronary artery disease

### Preparation

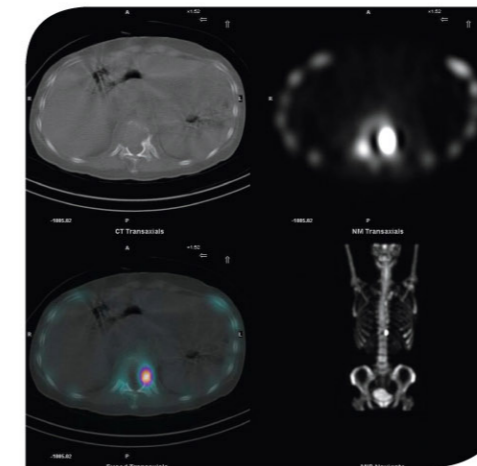
The variety of nuclear medicine examinations is diverse. Different examinations require different preparations and imaging schedules. Patient will be given an appointment sheet explaining the details of preparation and imaging schedule for a particular procedure prior to the examination. Patient should follow closely the instruction to get the best and most accurate result.



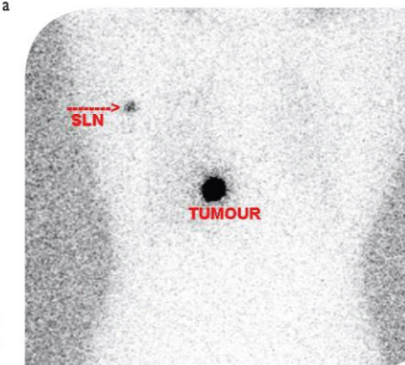
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### Procedure

For most nuclear medicine examinations, a radiopharmaceutical is administered to patient by injection, and less common to be taken orally or by inhalation. The patient is positioned on an imaging table and imaged by a Gamma Camera. Patient needs to lay still during each scan. The camera then detects and records the radioactive emissions from the patient's body. Imaging may take place immediately, a few hours later, or even several days after the radiopharmaceutical is administered. Under different circumstances, patient may need to change positions for multi-angle imaging.



SPECT/CT demonstrates cancer spread to bone in a patient with breast cancer



Localization of the sentinel lymph node in a patient with breast cancer

### Safety

Nuclear medicine procedures are among the safest diagnostic imaging examinations available. Side effects to radiopharmaceuticals are very rare (2-3 per 100,000 injections). The radiation doses received are often comparable or less than X-ray or standard CT examinations.

### Location Map



### Service Hours (By appointment only)

Monday - Friday 9:00am - 5:00pm  
Saturday 9:00am - 1:00pm  
Sunday and Public Holidays (On request)

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