

## **DIGITAL PET PROVIDES**

	Advantage	Digital PET Scan	Analog PET Scan
<b>@</b>	Clarity	5 times higher clarity	Lower resolution detectors
<b>(</b>	Sensitivity	4 times higher sensitivity (Less Radiation exposure)	Requires more radioactive material to produce an image
8	Speed	3 times more speed-quick result	Slower processing times
	Accuracy	Enhanced diagnostic accuracy and better patient comfort	Less advanced image reconstruction algorithms may result in more artifacts



## **OUR EXPERTISES**



**High Resolution PET-CT** 



**PET-MRI** Fusion



Radionuclide Therapies



Diagnostic 80 slices plain/contrast CT



**Interventional Procedures** 



PET CT/USG guided biopsies



**PET guided RT Planning** 



Advanced Diagnosis in Pathology with "Immuno Histochemistry"

# What are molecular imaging, nuclear medicine & PET CT?

Molecular imaging is a type of medical imaging that provides detailed pictures of what is happening inside the body at the molecular and cellular level which uses very small amounts of radioactive materials (radiopharmaceuticals) to diagnose and treat disease. PET is a powerful non-invasive tool for diagnosing cancer and determining the severity and extent of cancer, heart disease and brain disorders.

#### **PET Imaging**

PET imaging with the radiotracer FDG is one of the most significant diagnostic imaging tools ever developed. FDG is a compound similar to glucose, or sugar, which accumulates in areas of the body that are most metabolically active (using glucose at a high rate). In addition to FDG, other PET radiotracers are available to visualize a large variety of cancerous and noncancerous processes

#### How do they help patients?

- PRECISE STAGING OF CANCERS
- RESPONSE EVALUATION
- RESTAGING
- BETTER MONITORING OF CANCER RECURRENCE
- EVALUATION OF CANCERS OF UNKNOWN ORIGIN
- BETTER UNDERSTANDING OF THE PATHWAYS OF DISEASE
- PET HELPS IN GUIDING THE BIOPSY SITE OF ACTIVE DISEASE
- F18-FDG PET CT IMAGING IN INFECTION AND INFLAMMATION IMAGING
- 18F FLUORIDE BONE SCAN
- 18F FDG PET/CT IN CARDIOLOGY
- PET/CT IN NEUROLOGY
- F-18 PSMA PET CT IN PROSTATE MALIGNANCIES
   PET GUIDED RT PLANNING
- F-18 DOPA PET CT IN PARKINSON DISEASE

#### Role of Ga-68 PET CT

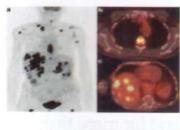
For this scan an injection containing a radioactive tracer called Ga68 (Gallium-68) (an isotope with physical half-life of 68 mins) labeled with some specific radiopharmaceutical is administered to the patients, allowing us to identify certain types of tumors. For example Ga68 **DOTATATE** is more sensitive for neuroendocrine tumors than the conventional F18-FDG PET-CT.

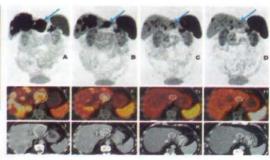
Several Ga-68 PET scans and their indications:

- Ga-68 DOTATATE precisely identifies the positive sites of neuroendocrine tumors (NETs)
- Ga-68 PSMA scan provides an accurate target for prostate
   carcinoma specific imaging and therapy.
- Ga-68 Exendin 4 
   a novel pharmaceutical Glucagon-like peptide-1 receptor (GLP-1R) targets the benign insulinomas.
- Ga-68 FAPItargeting FAP (fibroblast-activation-protein) which is over expressed in several tumors.

#### **Merits of Ga68-PET**

- Identifies the smaller lesions, which was previously missed in the conventional FDG PET CT.
- Plays a major role in staging, restaging, and response assessment of neuroendocrine tumors and various cancers which facilitates a better treatment plan and has a potential impact on management of different cancers.





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# Where can you get a Digital PET CT scan?

centre. NeuMoD Private Limited, Hubli, is the first to start the above said services in the entire north Karnataka, which caters to the people of Goa & south of Maharashtra as well. Apart from the routine F18 FDG PET CT scans, Ga-68 PET CT scan are also offered. It aims to provide service to the patients at a reasonable cost and get maximum benefit. We don't have a waiting list or any delays for PET scans or radionuclide therapy. It serves to provide better services and facilities to cater to the needs of patients

#### DIAGNOSTIC 80 SLICE PLAIN/CONTRAST CT AVAILABLE

# We have a team of Experts in the following fields :

- Nuclear Medicine & Molecular Imaging
- Radionuclide Therapies
- Radiology
- Interventional Radiology
- Oncopathology

For more details contact:

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