



EMBRACE EVERY LIFE MOMENT

with our **NEW F18 FET PET Scan Technology** for Superior Glioma Detection



NEW
F18-FET
[GLIOMA]

FDG
[DEMENTIA]
FLUTEMETAMOL
[ALZHEIMERS]

OTHER
TRACERS
NUCLEAR MEDICINE
PHYSICIANS

PREPARATION

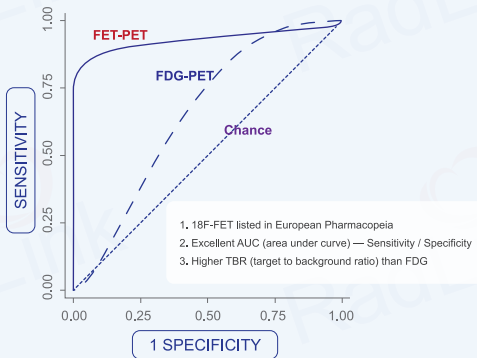
NEW

F18-FET PET demonstrated excellent performance for diagnosing gliomas and a highly relevant tool for patient management

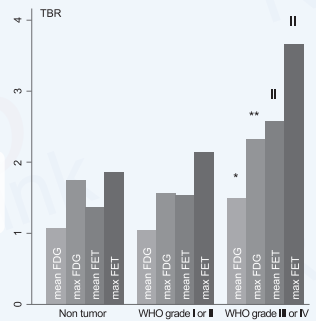
WHY IS F18-FET PET PREFERRED FOR GLIOMAS/ PRIMARY BRAIN TUMOR?^

- ✓ Tumour delineation with potentially higher sensitivity/specificity than FDG PET and MRI
- ✓ Tumour response to therapy (distinguishing between recurrence and radiotherapy induced change)
- ✓ Selecting the best biopsy site and therapy planning
- ✓ Distinguish between low and high grade gliomas

F18-FET PET: THE BEST IMAGING AGENT IN Eu. Phar. FOR COLOUR IMAGE*



RDC (Receiver Operating Characteristic) curves for discrimination between brain tumor and nontumoral lesion for FDG-PET and FET-PET (n=119 patients)



TBR (Target to Background Ratio) comparison according to histologic WHO glioma grading

COMMON INDICATION FOR F18 FET PET (Suspicious of Primary Brain Tumor)

- AT PRIMARY DIAGNOSIS
 - Differentiation of grade III and IV tumours from non-neoplastic lesions or grade I and II gliomas
 - Prognostication of gliomas
 - Definition of the optimal biopsy site (e.g. site of maximum tracer uptake)
 - Delineation of tumour extent for surgery and radiotherapy planning
- DIAGNOSIS OF TUMOUR RECURRENCE
 - Differentiation of glioma recurrence from treatment-induced changes, e.g. pseudoprogression, radionecrosis
- DISEASE AND THERAPY MONITORING
 - Detection of malignant transformation in grade I and II gliomas
 - Response assessment during and after radiotherapy and/or chemotherapy
 - Differentiation of tumour response from pseudoreponse during antiangiogenic therapy

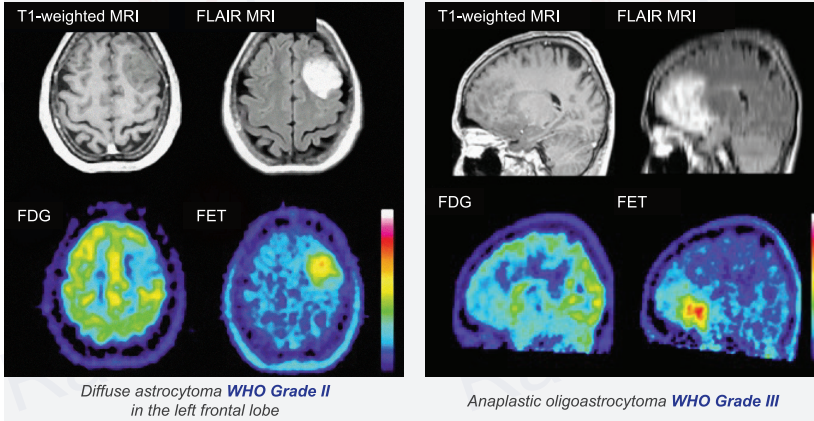
* Reference: Dirk et al. Nuclear Medicine and Biology, 2009 Oct; 38(7): 779-787.; European Association of Nuclear Medicine

* Reference: Vincent et al, Neuro-Oncology 18 (3), 426-434, 2011

Reference: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3351513/>; Sec5; Albert HL, Weller M, Suchorska B, Galiliks N, Soffritti R, Kim MM, et al. Response Assessment in Neuro-Oncology Working Group and European Association for Neuro-Oncology recommendations for the clinical use of PET imaging in gliomas. Neuro Oncol. 2016;18:1199-1206.

VISUAL COMPARISON BETWEEN MRI/FET/FDG[^]

WHO Gliomas grading: Low grade (Benign): i and ii ; High grade (Malignant): iii and iv



FDG
[DEMENTIA]
FLUTEMETAMOL
[ALZHEIMERS]

WHAT IS GLIOMA?

Glioma is a common type of tumor originating in the brain



Gliomas represent **28%** of all tumors

FACTS ABOUT BRAIN TUMORS IN THE UNITED STATES*

An estimated **688,000+ PEOPLE** in the U.S. are living with a primary brain or central nervous system (CNS) tumor diagnosis:

138,000 with MALIGNANT TUMORS

550,000 with BENIGN TUMORS

PRIMARY BRAIN TUMOR*

33% Other (Ependyoma, Oligodendroglioma, Embryonal, etc.)

2% Lymphoma

9% Nerve Sheath



16% Glioblastoma

7% Astrocytoma

35% Meningioma

14% Pituitary

Approximately **20 - 40%** of all other cancers later develop a **brain metastases**

This accounts for 98,000 to 170,000 metastatic brain tumor cases each year*

*In 2012, new primary brain tumor diagnoses included:

63% BENIGN TUMOR (41,980 Cases)



37% MALIGNANT TUMOR (24,300 Cases)

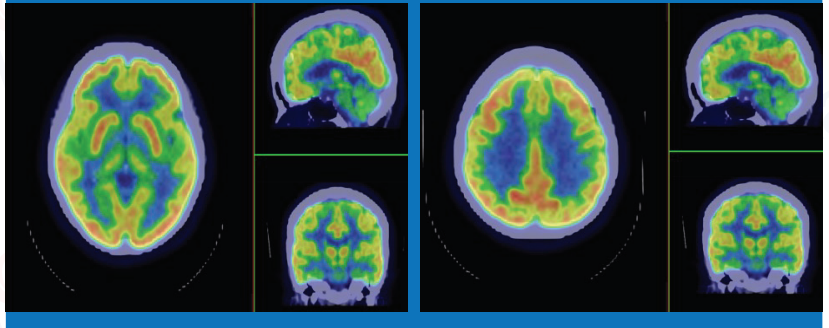
FDG FOR DEMENTIA

In neurology, F18-FDG PET/CT imaging allows us to assess various information for assessing several neurodegenerative disorders such as Alzheimer's disease, Frontotemporal dementia (FTD), Lewy body dementia and other types of dementia. FDG PET can sensitively display the distinct patterns of neuronal and synaptic dysfunction associated with neurodegeneration

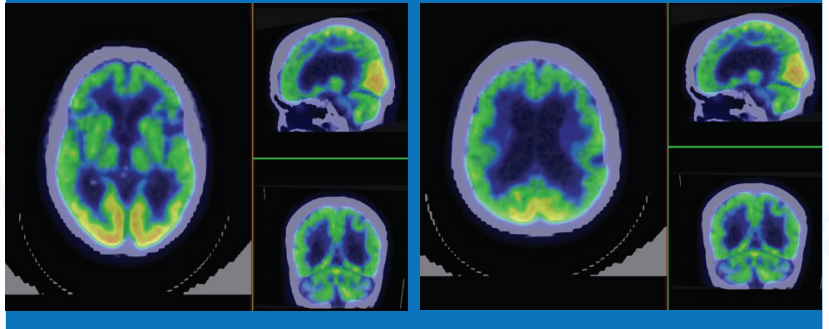
and can depict early metabolic changes before the structural changes seen on CT or MRI.

This allows early diagnosis and assessment of further cognitive decline⁶. Specifically, FDG PET for Dementia, our Nuclear Medicine Physician utilises a dedicated software to assist them in the interpretation of the acquired scan images.

SAMPLE IMAGES FOR A **NEGATIVE** FDG BRAIN PETCT SCAN



SAMPLE IMAGES FOR A **POSITIVE** FDG BRAIN PETCT SCAN



The scan would take around 10-15 minutes. Patient is advised to fast for at least 5 hours prior to scan.

Diabetic medications should be discontinued for 6 hours prior to injection.

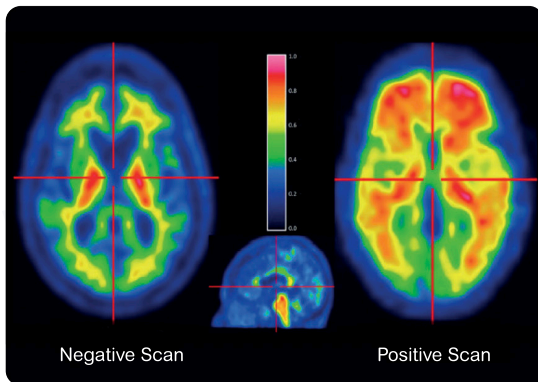
VIZAMYL™ BREAKTHROUGH IN IMAGING AND DIAGNOSTICS TECHNOLOGY MAKING IT POSSIBLE FOR EARLY DETECTION OF ALZHEIMER'S DISEASE

RADLINK Positron Emission Tomography (PET) centre is the first PET imaging centre in Singapore that offers F18-Flutemetamol Amyloid PET imaging services, Vizamyl™, an amyloid imaging agent with FDA approval for color image interpretation¹ aiding in the assessment of Alzheimer's disease.

Breakthrough imaging scan such as the Vizamyl™, amyloid PET scan enable early detection of amyloid in patients suspected of pre-dementia, providing a more precise understanding of the changes in patient's brain. The amyloid PET scan works by injecting the patient with a radiopharmaceutical tracer. This tracer then binds to the beta-amyloid plaques in the brain, which appear brightly on a scan.

Diagnosing Alzheimer's Disease is complex, Vizamyl™, Amyloid PET imaging represents a potential major advancement in the assessment to those with cognitive impairment. This scan visualizes plaques present in the brain, which are prime suspects in damaging and killing nerve cells in Alzheimer's. Before amyloid PET, these plaques could only be detected by examining the brain at autopsy².

FLUTEMETAMOL F18 INJECTION (VIZAMYL) Detection of Beta-amyloid in Alzheimer's Disease



Amyloid deposits show up bright red on PET scans, allowing doctors to confirm if a patient has a pre-dementia, also known as mild cognitive impairment (MCI)³.

¹ <https://www.gehealthcare.co.uk/en/products/nuclear-imaging-agents/vizamyl>
² <https://radiology.ucsf.edu/patient-care/services/specialty-imaging/alzheimer>

SUCSF Department of Radiology & Biomedical Imaging, "Amyloid PET Scan for Alzheimer's Disease Assessment" 2019, <https://radiology.ucsf.edu/patient-care/services/specialty-imaging/alzheimer>

WHAT IS ALZHEIMER'S DISEASE?

ALZHEIMER'S is a specific brain disease that accounts for **60-80%** of dementia cases.



→ Alzheimer's is a **type of dementia**

Alzheimer's is a **cause of dementia** ←

DEMENCIA is a general term for symptoms like decline in **memory, reasoning or other thinking skills.**

Alzheimer's disease (AD) is the most common type of dementia, a continuous decline in thinking, behavioural and social skills that affects a person's ability to function independently. It is a progressive disease beginning with mild memory loss and possibly leading to loss of the ability to carry on a conversation, manage finances and respond to the environment. AD involves parts of the brain that control thought, memory, and language.

They may also be associated with behavioural changes, such as agitation, depression, anxiety, aggression, hallucinations and delusions.

Researchers believe there is not a single cause of Alzheimer's disease. The disease likely develops from multiple factors, such as genetics, lifestyle and environment. Scientists have identified factors that increase the risk of Alzheimer's. While some risk factors - age, family history and heredity can't be changed, emerging evidence suggests there may be other factors we can influence.

Speak to your physician on management of Alzheimer's and Dementia

OTHER TRACERS
NUCLEAR MEDICINE
PHYSICIANS

Radlink | NEW F18 PET Scan for Superior Glioma Detection


OTHER TRACERS AVAILABLE


RadLink is an advanced centre for PET CT scans providing molecular imaging (both FDG and Non-FDG Tracers) and radionuclide therapy. We have a wide range of radioactive tracers for our nuclear medicine specialists to diagnose complex cancers.


ONCOLOGY IMAGING AND RADIONUCLIDE THERAPY

- **FDG PET**
- **FDG PET Brain for Dementia**
- **PET Contrast Add-On**
- **F-18 Choline**
- **Flutemetamol F-18 Injection (Vizamyl™)**


-  **GALLUM - 68 DOTANOC**
Neuroendocrine tumors

-  **FET**
Detection of viable tumor tissue, Tumor delineation, Selecting best biopsy site, Non-invasive tumor grading and Therapy planning

-  **C11 ACETATE / FDG**
Dual-tracer PET Study for Hepatocellular Carcinoma

-  **SODIUM FLORIDE PET BONE SCAN**
For detection of bone metastases and radiographically occult fracture

-  **GALLUM - 68 PSMA**
Prostate cancer

-  **XOFIGO**
Xofigo is a therapeutic alpha particle-emitting pharmaceutical that is indicated for the treatment of adults with castration-resistant prostate cancer (CRPC), symptomatic bone metastases and no known visceral metastases



YOUR PHYSICIAN WILL DETERMINE THE RIGHT PET CT SCAN FOR YOU

OUR NUCLEAR MEDICINE PHYSICIANS

At RadLink, our nuclear physicians have expertise in both imaging and therapy. Count on our specialists for unmatched expertise and unwavering dedication at every step of your patient's medical journey.



Dr Gilbert Keng

Nuclear Medicine Physician

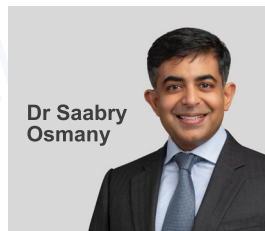
- Radionuclide therapy for treatment of benign thyroid diseases, thyroid & liver cancers etc.
- Oncological PET and Radionuclide (bone scanning, nuclear cardiac & renal imaging etc) imaging



Dr Lenith Cheng

Nuclear Medicine Physician and Diagnostic Radiologist

- Targeted radionuclide therapy (theranostics) such as PSMA radionuclide therapy, PRRT, radioactive iodine therapy.
- PET (positron emission tomography) imaging, radionuclide functional imaging, hybrid oncological imaging.
- Oncologic imaging and body CT/MRI



Dr Saabry Osmany

Nuclear Medicine Physician

- Nuclear medicine imaging - PET (positron emission tomography) - including oncology, sports medicine, cardiology, neurology, infection, inflammation, endocrinology.
- Radionuclide therapy including Radium223 for bone metastases.

PREPARATION FOR PET EXAMINATION

THINGS TO TAKE NOTE FOR A PET SCAN



Bring along all your previous X-ray, Ultrasound, CT, MRI films or PET images/ report and blood tests or biopsy reports, together with medication list.



If there is a possibility that you might be pregnant or if you are breastfeeding, please notify our staff before your examination.



If you need to reschedule, please inform us 48 hours in advance.



Patients who are late may not be able to proceed with scan due to tracer decay.



Do not smoke on the day of your scan.



Please do not exercise or engage in any strenuous activity or massage 24 hours prior to scan.



Do not eat or drink (except plain water) for (6) hours before your appointment **(Only for FDG, Dementia, C11, F-18 Choline and DOTANOC).**

ADDITIONAL THINGS TO TAKE NOTE FOR DIABETIC PATIENTS



Do not take oral diabetic medication or insulin injections on the day of the scan (however, please bring it along on the day of the scan).



Patient to have the usual diabetic medication or insulin injection the day before the scan.

WHAT TO EXPECT DURING A PET SCAN



You can expect to be at our centre for 2 to 4 hours (depends upon the scan requested).



Intravenous injection delivers radioactive tracer



Wait approximately 45-90 mins for tracer uptake depending on the type of scan



Proceed for scan in our digital PET machine

DELAYED SCAN = DELAYED TREATMENT

Book an Early PET Scan
Appointment with Us!



SCAN QR CODE or
CALL +65 6836 1318



PATIENT JOURNEY

VISIT



Visit a doctor to get a referral form.

BOOK



Call our centre at 6836 1318 or scan the QR code to WhatsApp us to book an appointment as early as next working day.

RECEIVE



Report will be sent to your doctor.

REVIEW



Review with your doctor and start your treatment plan early (if required).

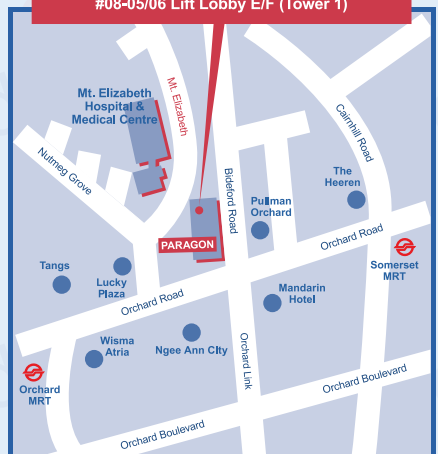
WE ARE AN ADVANCED CENTRE FOR PET/CT SCANS

- PET/CT imaging has proven clinical value for diagnosing and staging of cancer
- We have a wide range of radioactive drugs for our doctors to diagnose complex cancers
- We are a CPF Medisave-approved centre



SCAN QR CODE
to download referral form

RadLink PET and Cardiac Imaging Centre Pte Ltd
#08-05/06 Lift Lobby E/F (Tower 1)



RadLink PET and Cardiac Imaging Centre

290 Orchard Road #08-05, Paragon Medical (Lobby E/F) Singapore 238859 | enquiry@radlink.com.sg | www.radlink.com.sg