Using PET/CT for Insight Into the Brain

Contact Us
To learn more about our center, visit clevelandclinic.org/brainhealth

For appointments:
In Cleveland:
216.444.2772

In Las Vegas:
Cleveland Clinic Lou Ruvo Center for Brain Health
888 West Bonneville Avenue
Las Vegas, NV 89106
888.370.8933

About Us
Cleveland Clinic
Cleveland Clinic is a nonprofit, multispecialty academic medical center, consistently ranked among the top five hospitals in America by U.S. News & World Report. Founded in 1921, it is dedicated to providing quality specialized care and includes an outpatient clinic, a hospital with more than 1,300 staffed beds, an education institute and a research institute. clevelandclinic.org

Cleveland Clinic Lou Ruvo Center for Brain Health
Cleveland Clinic Lou Ruvo Center for Brain Health provides state-of-the-art care for neurodegenerative disorders and for the family members of those who suffer from them. Clinical trials and development of new therapies are important themes of the center. The physicians and staff at the Lou Ruvo Center for Brain Health continuously work towards the development of early diagnosis and the advancement of knowledge and treatments concerning neurodegenerative disorders, which could one day delay or prevent their onset. Patients receive expert diagnosis and treatment at the Lou Ruvo Center for Brain Health, which offers a multidisciplinary patient-focused approach to diagnosis and treatment, promoting collaboration across all care providers, offering patients a complete continuum of care and infusing education and research into all that it does. clevelandclinic.org/brainhealth

About Your PET Exam
Please consult your doctor or contact us if you believe a PET scan might be helpful for you or a loved one. Cleveland Clinic staff is specially trained to make sure every patient has a comfortable, effective imaging session. Any special medical needs you have will be addressed and all questions will be answered. The results of your procedure will be sent to your Cleveland Clinic physician or to any other provider you authorize.

Why You Can Expect More
Cleveland Clinic Lou Ruvo Center for Brain Health imaging services are backed by the full resources of Cleveland Clinic, a recognized world leader in medicine, ranked among the nation’s top hospitals by U.S. News & World Report.

Cleveland Clinic’s Imaging Institute is staffed by board-certified, academically trained subspecialty radiologists. Collectively, they interpret more than 1.9 million exams per year.
How Amyloid PET Imaging Helps Evaluate Brain Health

Cognitive disorders are diagnosed in clinic by a neurologist who can find scanning to be helpful in determining the cause of cognitive decline. Amyloid reveals the plaques of Alzheimer’s disease. Used in combination with the tracer Amyvid, a PET scan may:

- Rule out an Alzheimer’s disease diagnosis; a negative scan indicates that symptoms of cognitive decline are being caused by something other than Alzheimer’s disease.
- Detect the brain’s level of amyloid plaque, an indicator of Alzheimer’s disease. (However, a positive scan does not automatically mean the patient has Alzheimer’s disease.)
- Provide a glimpse into the future, helping doctors predict the patient’s clinical course.

Knowledge Is Power

A negative amyloid PET scan can offer reassurance to people who mistakenly think their memory problems are caused by Alzheimer’s disease. Even though treatment options are limited for those with Alzheimer’s disease, knowing your brain health status allows you to take action; for example, by beginning to plan for the future and enrolling in clinical trials that may improve your cognition.

Who Should Be Scanned

The PET scan with amyloid is recommended for use in people older than 60 with mild to moderate cognitive impairment. It is not meant for people who, regardless of age, are asymptomatic or “normal.”

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What Is PET Imaging?

A Positron Emission Tomography (PET) scan can detect abnormalities in the body before structural changes appear. The test can open a window into the body’s biological function when doctors inject a very small dose of a radioactive chemical, or radiotracer, into a vein in the patient’s arm. The tracer is absorbed by the organs and tissues being studied, allowing doctors to measure the organ functions.

Two PET Scans, One Goal

There are two types of PET scans for the brain: FDG scan of brain metabolism and amyloid scanning. Depending on the circumstances, physicians may select one of these PET scans to provide greater insight into a suspected diagnosis. Talk with your physician about the PET scan that is most appropriate for you.

FDG PET Imaging of Brain Metabolism

The most commonly used tracer is fluorodeoxyglucose (FDG), a compound similar to sugar that measures cell metabolism and helps in the diagnosis of Alzheimer’s disease (AD).