

PET Technology  
Biomedical Seminar  
ELE 282  
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What is PET?

PET stands for Positron Emission Tomography . It is a procedure that produces powerful images of the human body's biological functions . PET shows the chemical function (metabolism) of an organ or tissue .

What is it used for?

diagnose and treat a number of different diseases, including cancer, coronary heart disease and seizure disorders . In cancer applications, PET provides tumor imaging and has proven to be very accurate in identifying the extent of malignant disease .

How does it work?

A small blood sample will be taken to check your blood sugar (glucose) level. A technologist will inject a small amount of radioactive glucose into your bloodstream. This glucose is called a "tracer" and will be distributed throughout your body. Radioactive glucose must pass multiple quality control measures before it is used for any patient

injection. In fact, the radiation exposure associated with PET is similar to that of a conventional CT scan.

How does it work Cont.

After your injection, you will be asked to relax and remain relatively still for about an hour. The patient is placed on a bed and slowly moved through the scanner. Once complete, the scans are sent to a computer and properly processed.

How long is the procedure?

You can expect to be in the PET center for one-and-a-half to three hours. A body scan from the chin to the pelvis area takes about 50 to 60 minutes. Brain or heart procedures take about 30 minutes to complete.

How you feel after?

You should feel fine after the scan. There are no side effects from the injected tracer. If you have a heart scan, you may feel flushed afterwards.

Sources

<http://www.indianacancer.com/PET.html#7>  
<http://www.iame.com/learning/pet-c/pet-cintro.html>  
<http://www.bethisraelny.org/advances/pet.html>