

### Why Should I Have a PET Scan?

Diagnostic Accuracy of PET vs. Conventional Imaging (\*)

Cancer Type	Conventional Imaging	PET Imaging	Improvement
Breast	67%	89%	33%
Colorectal	80%	94%	18%
Gastro-Esophageal	68%	83%	22%
Head and Neck	65%	87%	34%
Liver	81%	93%	15%
Lung	68%	82%	20%
Lymphoma	64%	88%	38%
Melanoma	80%	91%	14%
Pancreatic	65%	81%	25%
Testicular	68%	92%	35%
Uterine/Cervical	43%	87%	102%

(\*) Source: The Journal of Nuclear Medicine Supplement, Volume 42, Number 5, May 2001 and UCLA.

#### “Why should I have an expensive PET scan? Won’t one of the other procedures tell my doctors all about my cancer?”

Studies show that a PET scan is the best way to detect many types of cancer, its recurrence and spread. But people ask whether one of the publicly funded procedures, such as a CT scan, will be good enough.

Part of the answer is that many patients who go to Vancouver’s PETSCAN Centre have already been through several other diagnostic procedures, but their doctors still don’t know for sure what’s happening. For example:

Your cancer is meant to be in remission, but they can’t be certain. Is that spot found on the lung by a CT scan just scar

tissue, or is it new disease?

You are to have surgery to remove a tumour the CT scan found, but is that the right thing to do? What if the cancer has spread? Maybe chemotherapy rather than surgery is what should be done.

They have found a large melanoma on your leg, and are talking about amputation. That might be the right thing to do if the cancer is localized to that one place. They aren’t sure.

Your blood tests indicate a recurrence of cancer, but they can’t find it. They are discussing exploratory surgery.

These are not imaginary

scenarios. They are actual situations the PETSCAN Centre has dealt with.

For example: For a lung cancer patient, surgery was not an option because the size of the tumour shown on the CT scan suggested almost certain spread of the cancer. A PET scan discovered there had been no spread, so surgery was appropriate after all. In another case, the opposite happened: a PET scan just before surgery discovered multiple disease sites so that surgery would have been futile.

A PET scan found that a lymphoma patient had extensive spread of the disease, which other procedures had failed to detect. Therefore, planned chemotherapy was cancelled and a bone marrow transplantation was done instead. A subsequent PET scan showed this treatment was successful.

A woman operated on for breast cancer had a PET scan to find out if she got it all. It confirmed the absence of disease in that breast, but detected cancer in the other breast, which ultrasounds had missed.

Of course, no diagnostic procedure is 100% accurate. But PET scans are significantly more accurate for most cancers than other diagnostic procedures. On average, a PET scan provides the right answer close to 90% of the time, while other procedures are right, on average, 70% of the time – or wrong about 30% of the time! That’s why doctors recommend PET scans. ■

#### A PET Scan:

- Is safe and there are no side effects;
- Can replace multiple medical procedures with a single exam;
- Can reduce or eliminate futile or unnecessary treatments;
- Can help with the planning of, or entirely eliminate, surgery;
- Can validate or alter patient care;
- Is done in less than three hours;
- Provides interpretations within 48 hours to your doctor.

#### Previous Articles

In our series of articles about PET, we have discussed so far the following topics:

1. PET – General Introduction (June 8)
2. The Vancouver PETSCAN Centre (June 15)
3. Use of PET in Lung Cancer (June 22)
4. Use of PET in Breast Cancer (June 29)
5. Use of PET in Colorectal Cancer (July 13)
6. Use of PET in Melanoma (July 27)
7. Use of PET in Lymphoma (August 10)
8. PET and the Health Care System (August 24)
9. A Patient’s Guide for PET Scans (Sept. 7)
10. Why Use PET? (Sept. 21)

If you didn’t have a chance to pick up a copy of any of these issues, you can find the articles on the PETSCAN Centre’s website: [www.petscan.ca/news.htm](http://www.petscan.ca/news.htm)

### Full-body clinical PET scans are available at the Vancouver PETSCAN Centre.



For more information call:  
**(604) 689-7776**  
 Visit our website:  
**[www.petscan.ca](http://www.petscan.ca)**

