

PET Scans Better Detect Bladder Cancer That Has Spread

The study: Researchers compared the use of positron emission tomography (PET) scans with computed tomography (CT or CAT) scans and magnetic resonance imaging (MRI) to detect bladder cancer that has spread to other areas of the body. PET, CT, and MRI scans are ways to create detailed images of the body. A CT scan uses x-rays, an MRI uses magnetic fields, and a PET scan uses a small amount of a radioactive substance injected into a patient's body to produce the images. This study used a specific type of PET scan called ¹⁸F-2-deoxyglucose PET or FDG PET.

CT and MRI scans are commonly used to see if or where the cancer has spread. In addition to this information, PET scans can also measure how active a cancer cell is, which can tell doctors if the cancer is continuing to grow and spread.

After receiving CT and MRI scans, 53 people with bladder cancer also received PET scans to stage the cancer, determine if treatment was working, or to find out if the cancer had spread. The results of the imaging tests were compared with biopsy results or the results of follow-up CT and MRI tests.

The results: Researchers found that PET scans more accurately detected bladder cancer that had spread when compared with CT and MRI. For 40% of patients, PET scans found that the cancer had spread more than shown on CT or MRI. For 10% of patients, PET scanning showed that the cancer had spread less than shown on CT or MRI. The accuracy of PET scanning to find the spread of cancer caused the doctors to switch to a more aggressive treatment for 19% of patients and helped 20% of patients avoid a biopsy (removal of a tissue sample for examination under a microscope), which can be an invasive procedure.

What this means for patients

Our findings suggest that PET scanning has the potential to be a cost-effective imaging tool for patients with bladder cancer that may have spread, said lead author Andrea Apolo, MD, from Memorial Sloan-Kettering Cancer Center. Because of the increased ability to detect cancer when compared with CT scans or MRI tests alone, PET scanning should be considered as the standard screening method when it is suspected that bladder cancer has spread to other areas of the body. Talk with your doctor about the stage of your bladder cancer and whether it may have spread, including any additional tests you may need.

Questions to Ask Your Doctor

- What stage is the bladder cancer? What does this mean?
- Has the cancer spread to other areas?
- What other screening tests do I need?
- If the cancer has spread, what treatment options do I have?
- What treatment do you recommend and why?
- What is the goal of this treatment?

For More Information

[Cancer.Net Guide to Bladder Cancer](#) [1]

[Positron Emission Tomography Scan - What to Expect](#) [2]

[Magnetic Resonance Imaging - What to Expect](#) [3]

[Computed Tomography Scan - What to Expect](#) [4]

Links:

[1] <http://www.cancer.net/patient/Cancer+Types/Bladder+Cancer>

[2] <http://www.cancer.net/patient/All+About+Cancer/Cancer.Net+Feature+Articles/Treatments%2C+Tests%2C+and+Procedures/Positron+Emission+Tomography+%28PET%29+Scan%26mdash%3BWhat+to+Expect>

[3] <http://www.cancer.net/patient/All+About+Cancer/Cancer.Net+Feature+Articles/Treatments%2C+Tests%2C+and+Procedures/Magnetic+Resonance+Imaging+%28MRI%29%26mdash%3BWhat+to+Expect>

[4] <http://www.cancer.net/patient/All+About+Cancer/Cancer.Net+Feature+Articles/Treatments%2C+Tests%2C+and+Procedures/Computed+Tomography+%28CT%29+Scan%26mdash%3BWhat+to+Expect>