

PET/CT scanning joins the images from two scans into one image. PET is a nuclear medicine imaging technique that produces images that provide information about cell function. A CT scan uses special X-ray equipment to take many images from different angles around the body that provide information about a body part or organ. A computer then combines these images into one image called a PET/CT scan.

The PET scanner is a large machine with a hole in the middle. It looks like a donut with a table in the "hole" You will lie on the table. The table will slide into the machine. You will be asked to remain still during the scan. Each PET/CT scan procedure will take about two hours.

About Clinical Trial Participation

Every year, an estimated one million Americans participate in clinical trials to help researchers gather important information about the benefits and risks of new drugs and treatment methods. When these people were asked in recent surveys about their experience, the majority felt they had received excellent care and would be willing to participate in a clinical trial again, if given the opportunity. Thanks to these clinical trial participants, researchers have been able to identify new and effective cancer treatments. These treatments have the potential to one day become the new standard of care offered to future patients. For more information about clinical trial participation, please visit www.cancer.gov or call 1-800-4-CANCER.

"This trial may lead to a better understanding of cervical cancer that would help doctors plan the best treatment for patients."

*Missy Layfield
ACRIN Patient Advocate*

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Research Sponsorship

This research study is conducted by the American College of Radiology Imaging Network (ACRIN), a national cancer research organization sponsored and funded by the National Cancer Institute (NCI). The goal of ACRIN is to increase the length and quality of cancer patients' lives by conducting studies to evaluate medical imaging procedures.

Funded by the National Cancer Institute

A Study for Women with Advanced Cervical Cancer

Learning whether a PET/CT scan can help doctors provide better treatment



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RADIOLOGY
IMAGING NETWORK

If you have cervical cancer, your doctor may talk to you about joining this study to help evaluate a special scan using a new type of tracer. A tracer is a substance used in imaging scans and is sometimes referred to as a "radioisotope" or "radiopharmaceutical."

A tracer collects in the tissue of the tumor and gives off a signal that can be recorded and shows up in the scan image. The new tracer, called ^{64}Cu -ATSM, may help doctors better understand how different types of cervical cancer respond to treatment.

The purpose of this study is to determine if the results of a PET/CT (positron emission tomography/computed tomography) scan using the tracer ^{64}Cu -ATSM can help doctors find out if parts of your tumor are hypoxic (not getting enough oxygen). Studying the amount of oxygen in tumors is important because areas of a tumor without enough oxygen (hypoxic) do not usually respond as well to treatment as tumor areas that have a good oxygen supply. It has also been shown that cancer cells that are hypoxic tend to be more aggressive (they grow and spread faster) than cancer cells with normal or high levels of oxygen.

Identifying and measuring hypoxic areas of tumors is important for the treatment of women with cervical cancer. Researchers think it may be helpful to treat cancers that get little or no oxygen differently than cancers that get normal levels or a lot of oxygen.

The information researchers learn from this study could help doctors plan the best possible treatment for women with cervical cancer in the future. But, because this is a research study, you and your doctor will not know the results of the PET/CT scan using the new tracer, and your treatment will not be changed by the study results.

Who can join this study?

You may be eligible for this study if:

- You are a woman 18 years or older
- You have cervical cancer (stage IB2 to stage IVA)
- You agree to use contraceptives to prevent pregnancy if you are of childbearing age and are sexually active
- You are scheduled to receive standard concurrent chemotherapy and radiation therapy that will be given at the same time

What study procedures are not part of standard care?

You would only have the procedures described below if you decide to join the study.

- Collecting samples of your blood before and after you have completed treatment to be stored for use in future research (this is optional and the study nurse or doctor will provide more information)
- A PET/CT scan with the tracer FDG before your cancer treatment begins (the tracer FDG is not experimental and this test may be part of standard care at the hospital or clinic where you will receive your care)
- A PET/CT scan with the experimental tracer ^{64}Cu -ATSM not more than 4 weeks before you begin treatment
- A PET/CT scan with the tracer FDG 3 months after your treatment ends (the tracer FDG is not experimental and it helps doctors see which parts of the cancer tumor are most active)

What happens if I choose to join this study?

The study nurse or doctor will provide detailed information when they discuss the study consent form with you. The consent form contains many details about the study, including any risks and benefits. If you decide to join this study, you will have the procedures described above. You will also have the standard procedures for treating your type of cervical cancer that are followed by the hospital or clinic where you receive your care.

How long will I be on the study?

Active study participation is about one year, but participants will be followed by their doctors for up to 3 years.

Would it cost me anything to be in this study?

Taking part in this study will not lead to any added costs for you or your insurance company. You will not be charged for the procedures that are part of this research study. However, for standard care procedures, you will be charged according to normal billing practices.

An example of a PET scan that has been combined with a CT scan to create a PET/CT image.

