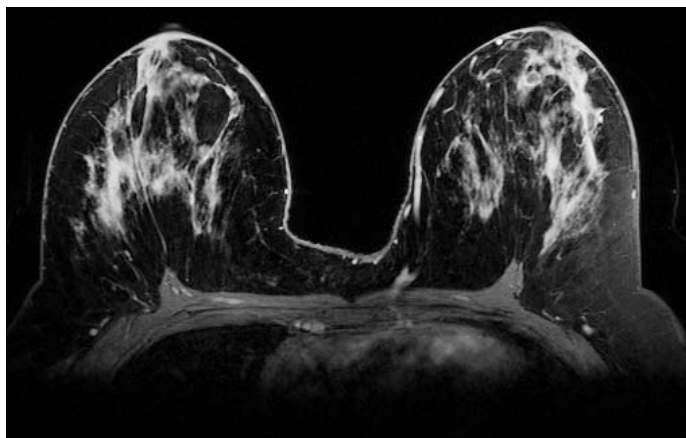


Learning about MRI and MRS

MRI uses a powerful magnet and radio waves linked to a computer to create remarkably clear and detailed cross sectional images of the body. To visualize an MRI, think of your body as a loaf of bread with its many slices. The MRI allows the physician to see many different "slices" of a body part by taking pictures from outside the body. The "slices" can be displayed on a video monitor and saved on film for analysis. MRI uses no radiation so you do not need to be concerned about having several MRI scans. For more detailed information about MRI scans, please visit www.acrin.org/xrays_scan.html.

An MRS scan is added to the MRI scan and takes an additional 15 minutes. MRS is able to detect the chemical make up of cells and can also help identify cancer cells from healthy cells. The information from an MRS scan is used to create a graph that shows a cell's chemical make up. Cancer cells will have a different graph than healthy cells. This information helps to pinpoint the spread and size of the cancer.



An example of a breast MRI image

Research Team

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This research is a collaborative effort between two National Cancer Institute (NCI) cooperative groups Cancer and Leukemia Group B (CALGB) and the American College of Radiology Imaging Network (ACRIN). CALGB is recruiting participants for the neoadjuvant treatment trial and inviting those participants to also take part in the ACRIN imaging trial. The research is being conducted at 11 NCI-designated Breast Cancer Specialized Program of Research Excellence (SPORE) sites throughout the United States.

Contact Information

www.acrin.org

For questions about treatment contact:

For questions about MRI/MRS scans contact:

A study for women undergoing neoadjuvant therapy

Could the decision to undergo chemotherapy, prior to surgery, provide answers to benefit thousands of women diagnosed with breast cancer every year?



ACRINTM
AMERICAN COLLEGE OF
RADIOLOGY
IMAGING NETWORK



Funded by the National Cancer Institute

www.calgb.org

www.acrin.org

Study Information

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 participants 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 treatments for breast cancer. 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 brochure provides information about an important research study for women who, through discussions with their doctor, have made the decision to undergo chemotherapy before scheduling surgery (this is called neoadjuvant). Participants will be carefully monitored (or tracked) to see how their tumor responds to chemotherapy, through the



A technologist with a patient having a breast MRI scan

use of an imaging scan that combines magnetic resonance imaging (MRI) and magnetic resonance spectroscopy (MRS). Core biopsies will also be obtained to help further determine a patient's response to treatment.

The combination of MRI/MRS scans and core biopsies will help researchers look for clues about how individual tumors respond to treatment. This research is critical because presently, it is difficult for doctors to tell whether a participant's tumor is responding well to chemotherapy. If these methods are proven successful, it will give doctors the tools they need.

“It would never be the goal of a doctor to prescribe a treatment to their patient, only to find out later that it didn’t work. Up until now, doctors have been unable to determine whether certain treatment methods work for specific patients. However, technology has the potential to change this. What if doctors could tailor treatments to specific patients? Research is moving in this direction. Through the use of imaging scans, it may be possible for researchers to see if patients — at a very early stage — are responding positively or negatively to treatment. This trial hopes to gain more insight into this technology and if proven successful, doctors would have the ability in the future to stop treatment if it is not working, thus avoiding any side effects or after effects that a patient would normally incur.”

Determining a successful course of action to treat your breast cancer can be a very frustrating process. It certainly was for me. If the choice to participate in this trial had been available when I was diagnosed with breast cancer and I knew it could lead to better, individualized care for future patients, I would have signed up immediately.”

- Barbara LeStage
ACRIN Patient Advocacy Committee

Frequently Asked Questions

Who can join this study?

This study is open to women who:

- Have enrolled in the CALGB Correlative Science trial 150007
- Receive neoadjuvant chemotherapy
- Are not currently pregnant

Why should I participate in this study?

Women who take part in this study will provide new facts for researchers about how a tumor responds to chemotherapy. If successful, this information could benefit thousands of women who are diagnosed with breast cancer every year.

What happens if I choose to join this study?

If you are interested, your doctor or nurse will give you detailed information on the study. You will be asked to sign an informed consent form and once complete, you will be registered for the study. As a participant you will be asked to undergo three (3) MRI/MRS exams:

- up to 4 weeks before you begin neoadjuvant treatment
- after your first cycle of treatment
- 3 to 4 weeks after your final chemotherapy treatment

In addition, you may be asked if you would volunteer to undergo an additional MRI/MRS exam to be performed within 72 hours of your first exam and prior to the start of treatment. Core biopsies will also be performed, both

prior to and following treatment. At your doctor's discretion, the core biopsies may be obtained at the time of your MRI/MRS scans.

A diagram outlining how the MRI/MRS scans will fit into your regular treatment program will also be provided to you by the doctor or nurse working on this study.

How long does the procedure last?

The MRI and MRS scans will be performed during the same exam. The entire MRI/MRS exam usually takes about one hour to complete.

How long will I be in this study?

Your participation will last approximately nine months, not including continued observation, and may include up to four (4) visits to the doctor's office (for MRI/MRS scans). Study participation is voluntary and you may choose to discontinue at any time.

Are there possible side effects?

Participants may encounter side effects during this study. Your doctor or nurse will discuss these side effects in more detail with you during your initial consultation.

Will it cost me anything to be in this study?

There is no additional cost to the patient for participation in this study. We encourage all interested participants to speak with your research associate about the possibility of monetary compensation for your time and effort.