

Healthline with Yale Cancer Center

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WTIC Newstalk 1080

Treatment Advances in Breast Cancer

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This is Healthline. A joint venture of WTIC NewsTalk 1080 and Yale Cancer Center. Yale Cancer Center is a resource for cancer programs throughout Connecticut, developing new advances in prevention, screening, diagnosis and treatment. On Healthline you will hear from some of the leading doctors in the country. Healthline is not intended to provide medical advice. Yale Cancer Center urges you to consult with a qualified physician in your community for diagnosis and for answers to your medical questions. And now, our co-hosts Oncologists Ken Miller and Ed Chu

Miller Good morning and welcome to Healthline. My name is Dr. Ken Miller and I am the Director of the Survivorship Program at the Yale Cancer Center in New Haven. Healthline, with the Yale Cancer Center, is our way of providing you with most up to date information on cancer care every Sunday morning at 8:30 a.m. here on WTIC NewsTalk 1080. Healthline features some of the nation's leading oncologists and cancer specialists who are in the forefront of the battle to fight cancer right here in Connecticut. Each week we are joined by a different expert from the Yale Cancer Center. Our goal is to give you help and hope, by answering your questions and giving you the latest information that is available. If you would like to submit a question about cancer to Healthline, please email us at healthline@yale.edu, or call us at 1-888-234-4-YCC. If you are interested in listening to past editions of Healthline, or if you would like to learn more about a specific kind of cancer, all of our shows are now posted in audio and written format on the Yale Cancer Centre website www.yalecancercenter.org. Today, in recognition of Breast Cancer Awareness Month, our program is going to focus on the treatment advances in breast cancer. Our guest is Dr. Lyndsay Harris, Associate Professor of Medicine in Medical Oncology and Director of the Yale Cancer Center Breast Cancer Program. Lyndsay, thank you so much for being with us today on Heathline.

Harris Thanks Ken, it's a pleasure to be here.

Miller Let's start out by talking about how common breast cancer is, and if the incidence of breast cancer is changing.

Harris Breast cancer is unfortunately a very common disease; women who live to the age of 80 are estimated to have a risk of 1 in 8 of developing breast cancer. Breast cancer does appear to be more frequent over time, so the incidence has increased.

Miller A lot of women, when they are diagnosed with breast cancer, wonder how it happened to them. Why is breast cancer becoming more common?

Harris It's a very complex question. I think that one of the reasons for the increased incidence of breast cancer is that the number of women getting mammograms has increased with time, and therefore, we are detecting more breast cancers. The good news is that women are more likely to survive from a diagnosis of breast cancer than they were 10 or 15 years ago.

- Miller Has the spectrum or stage of breast cancer changed from when you started your career?
- Harris Absolutely. The most frequent type of breast cancer I see now is very small breast cancers that are under 2 cm in size; many even under 1 cm in size. That was extremely unusual when I started my practice as a medical oncologist.
- Miller Could you review for the audience, and for myself, what the guidelines are that you share with the community in terms of screening? How should women be screened?
- Harris We have become much more confident about these guidelines as data has emerged over the last two decades. It's quite clear that women over 50 benefit from the use of annual mammograms, and that women between the ages of 40 and 50 should consider mammographic screening. Women who are at a high risk due to family history, should begin screening as early as 40 years old, and even earlier if their family member was diagnosed at a very young age.
- Miller In terms of self-screening, who should be doing a breast exam and how often?
- Harris Every woman should do a breast exam. We currently recommend that one be done at least once a month, preferably after your menstrual cycle. It should be something you become very familiar with. There is no woman who should avoid a breast exam.
- Miller How old should a woman be when she starts self-screening?
- Harris Puberty. It's important to start understanding and being able to evaluate your breast from a young age. There is no question that performing breast exams as soon as development occurs is an important part of general health.
- Miller I have heard women say that they don't know what they are feeling for, so they don't do a breast exam.
- Harris For many women that's true, and this is why it's important to consult with your physician. Probably one of the most important screening techniques is to do a regular breast exam under the guidance of a physician. There are also a number of educational tools to learn how to do proper breast exams available through the American Cancer Society, and other breast cancer organizations. They can be found very easily on the Internet.
- Miller So some of the messages are that you are never too young to start doing a breast exam, learn from your doctors, and also follow the guidelines in terms of mammograms. What's on the horizon in terms of mammography and other x-rays and imaging studies?

- Harris This is a very exciting time for new technologies, which we believe, will improve our ability to detect breast cancer even earlier. What we now know is that certain groups of women, particularly young women, may not have the same benefit from mammography screening as older women. This is not to say they don't benefit, because they definitely do, but there may be additional techniques that can detect breast cancer in younger, denser breasts. These include MRI, a more novel technology such as tomosynthesis, and digital mammograms.
- Miller Could you explain what tomosynthesis is?
- Harris Tomosynthesis is a new tool that uses a technology similar to the mammogram. Rather than just giving two pictures of the breast; one from the top and from the side, it gives multiple pictures throughout the breast, and is able to hone in on each piece of the breast in order to optimally evaluate that area.
- Miller So it's a more in-depth and more accurate way of looking at the breast?
- Harris Yes.
- Miller Which is terrific. I want to talk a little bit about women that are at a high risk. Can you tell when genetic testing is appropriate?
- Harris We know that there are certain women who are at a very high risk of developing breast cancer in their lifetime. These are women who carry an abnormal gene. There are several genes in this family; the BRCA 1 and 2 genes. Studies show that women, who have a mutation or an abnormality in one of these genes, have as much as 40-times the risk as the rest of the population for developing breast cancer. There is no way to know just by looking at a woman whether she has this abnormality. The only way is to do a blood test. Certain features of a woman's history, or her family's history, can tell us that she is more likely to have one of these mutations, especially if one of her family members had breast cancer under the age of 50.
- Miller What type of genetic testing is available here at Yale?
- Harris Genetic testing is a very simple procedure, but it's important that not only the test itself be done, but that pre- and post-test counseling occur. There are many implications that go along with this test, and knowing what those implications are before taking the test, is critical. For this reason, we have genetic programs at the Yale Cancer Center that offer counseling sessions prior to taking the actual genetic test.
- Miller We would like to remind you to email your questions to us at healthline@yale.edu, or call 1-888-234-4-YCC. We are going to take a short break for a medical minute. Please stay tuned to learn

more information about the treatment of breast cancer with Dr. Lyndsay Harris, from the Yale Cancer Center.

Medical Minute

This is a Medical Minute brought to you as a public service by the Yale Cancer Center. Breast cancer is the second most common cancer in women. In Connecticut alone approximately 3000 women will be diagnosed with breast cancer this year, but there is new hope for these women; earlier detection, noninvasive treatments and novel therapies provide more options for patients to fight breast cancer. In 2006 more women are learning to live with this disease than ever before. Women should schedule an annual mammogram beginning at age 40 or earlier if they have risk factors associated with the disease. With screening, early detection and a healthy lifestyle breast cancer can be defeated. Clinical trials are currently on underway at federally designated comprehensive cancer centers such as the Yale Cancer Centre to make innovative new treatments, which have not yet been approved by the Food and Drug Administration, available to patients. For more information visit their website at yalecancercenter.org.

Miller Welcome back to Healthline. This is Dr. Ken Miller, and I am in the WTIC studios with our guest Dr. Lyndsay Harris, who is an expert in the treatment of breast cancer at the Yale Cancer Center. Lyndsay, when a woman is diagnosed with breast cancer, what is her prognosis if she has early stage breast cancer?

Harris The prognosis for women with early stage, stage I breast cancer, is excellent. It has improved over time because of the new treatment modalities. Over 80% of women will be cured that are diagnosed with stage I breast cancer.

Miller What team members are involved in evaluating a woman who has been newly diagnosed, and how does your group make a treatment plan?

Harris We believe it's very important to have a multidisciplinary approach to the diagnosis and treatment of breast cancer. The mammographer, the breast surgeon, the medical oncologist, and the radiation oncologist all sit together and review the situation with the patient and make the treatment recommendation.

Miller I am going to share with you an e-mail that we received from Marcia who lives in Berlin, Connecticut. She says,

I am 45 years old and was just diagnosed with breast cancer that was measured approximately 1 cm in size. The lymph nodes were negative and I was wondering if I need chemotherapy?.

Harris It's important to look at all of the features that you have mentioned Ken, including the age of the patient, the size of the tumor, and the lymph nodes. There are additional features that are also

critical that the pathologist can provide. The multidisciplinary approach involves not only physicians who see patients, but also physicians who evaluate the pathology from the tumor, and who do special tests to tell us what the biological features of the tumor are, in order to offer the best treatment strategy.

Miller How would you advise Marcia?

Harris It's not something that can be done without complete information, but in general, for women with early breast cancer who have negative lymph nodes, they would require surgery. They may require radiation if they have a simple lumpectomy. Both hormonal therapy and chemotherapy are possibilities for breast cancer patients.

Miller When you talk about hormonal therapy, what are some of the choices that women have?

Harris In the last 5 years there have been several studies that show that a new class of hormonal agents called aromatase inhibitors, or antiestrogens, block the aromatase enzymes and reduce estrogen in the body and may be better than the standard tamoxifen. It is important to know that these new antiestrogens are only effective for postmenopausal women. There are ongoing studies to determine if the addition of these new drugs to therapies that block the estrogen cycle are useful.

Miller We have another e-mail from a woman named Barbara. She asked about a drug called Evista, and was wondering whether it was a useful drug in the treatment of women with breast cancer.

Harris Great question. Evista, or Raloxifene its generic name, has been in the press lately because of a very large randomized trial conducted by the NSABP. This was a prevention trial, designed to look at the prevention of breast cancer. It compared Raloxifene versus the standard drug that is used for prevention, tamoxifen. What the study found is that Raloxifene is in fact equally effective at preventing invasive breast cancer compared with tamoxifen. Now there are 2 options for the prevention of breast cancer. It is an important discussion to determine which drug is better for a woman who is considering prevention.

Miller So is Raloxifene a treatment drug or is it more of a preventive drug?

Harris Raloxifene has only been tested in the setting of prevention. It has never been tested adequately in the treatment of breast cancer, and is not currently recommended for that situation.

Miller What are some advances being made with chemotherapy?

Harris There is no question that we have made advances over the last 10 to 15 years in chemotherapy and that each change that has occurred has improved survival. There were changes with the addition of certain chemotherapy drugs such as Adriamycin, Paclitaxel, and Docetaxel. These new drugs have

improved survival. Most recently, using these chemotherapy drugs on a different schedule, every 2 weeks versus every 3 weeks, has again improved survival and reduced the chance of breast cancer recurrence.

Miller Can you tell us about the drug Herceptin? I know you have been involved with the research for it.

Harris Herceptin, or Trastuzumab, is one of the first examples of a targeted, or biological therapy for breast cancer. Herceptin was designed specifically to attack the HER-2 gene that is known to be a problem for 20 to 30% of breast cancer patients. What we know now is that this new antibody against the HER-2 gene is effective not only for patients with advanced breast cancer, but for patients with early breast cancer as well.

Miller Which is a wonderful advance in preventing the disease from coming back.

Harris Exactly, and Herceptin is able to prevent breast cancers from recurring after diagnosis in nearly 50% of the patients who take it.

Miller Can you share with us some details about the new clinical trial that just started here at Yale using Herceptin?

Harris We know that Herceptin is a wonderful advance for women with a certain type of breast cancer that has HER-2 gene expression, but the exact type of chemotherapy to use with the Herceptin and the frequency is not completely clear. Our goal is to not only improve our ability to treat the breast cancer, but to reduce side effects. We have a treatment strategy that is less likely to cause hair loss and nausea. This is one of the main goals of this new early stage breast cancer treatment.

Miller We would like to remind you to please email your questions to us at healthline@yale.edu. We are going to take a break to listen to a Survivor's Story. Please stay tuned to learn more information about the new treatment strategies for women with breast cancer with Dr. Lyndsay Harris.

Survivor Story

A few years ago the diagnosis of cancer was a death sentence for many patients, but today, thanks to advances in clinical research we are turning the corner in the battle against cancer. There are over 10 million cancer survivors now living in the US. They are the true heroes in the war against cancer. Here is the story of a hero from Fairfield.

I visited a walk-in clinic on Christmas Eve in 1999 because I thought I had the flu. The doctor there suspected that it was something more serious, and as he examined my belly he found a mass. I was referred to Dr. Tom Rutherford, a Gynecologic Oncologist and Researcher at Yale Cancer Center where I had surgery and received chemotherapy for stage II ovarian cancer. Because of early detection, excellent treatment and the benefit of the latest research, I recently celebrated 6

years as a cancer survivor. Today, I am a fervent believer that women should pay attention to changes in their bodies and should not be reluctant to tell their physicians any concerns they have, even those they feel might sound trivial. Early detection is the best way to cure cancer.

This Survivor's Story has been brought to you by Yale Cancer Center.

Miller Welcome back to Healthline. This is Dr. Ken Miller, and I am in the WTIC studios with our guest Dr. Lyndsay Harris, an expert in the treatment of breast cancer at the Yale Cancer Center. Lyndsay, I want to focus on some very exciting advances that I think people need to hear about. You are a well recognized authority in terms of profiling cancers and understanding the biology. Can you tell us about some of the tools that you use and the things that you are excited about in your work?

Harris Sure. We now realize that breast cancer is not one disease, but one that has many different faces. What we've seen from our biological studies is that you can fingerprint breast cancer and identify which type it is using new technologies such as microarray profiling.

Miller What is microarray profiling?

Harris Microarray profiling is a way to extract the genetic material from the tumor tissue and to look at the expression of thousands of genes at the same time. This is likened to a computer chip where you have thousands of pieces of information on the chip; likewise, we are able to print thousands of genes on the chip and then determine which of these genes are expressed in a particular woman's cancer.

Miller How is this going to impact treatment strategies?

Harris It teaches us what the biological differences are between breast cancers. We know that they look different under the microscope, we know that they behave differently based on patients' histories, but what we don't know is why. These new technologies, these profiles, can tell us which genes are associated with having an early relapse, which gene is not responding to a particular therapy, and which is responding well to another therapy.

Miller I have heard you lecture on the topic of triple-negative breast cancer. What is that and how does it relate to gene profiling?

Harris A number of years back investigators did gene profiling on a large group of tumors and found that a particular profile was seen in a subgroup of breast cancers. This subgroup was not previously recognized as being a separate biologic entity. Because of this exciting work, we now recognize

the basal-like, or triple negative breast cancer, as a separate entity with its own set of genes and undoubtedly its own response to treatment.

Miller Any clinical trials that are ongoing now, or that will be, that address that group of women?

Harris In order to know how to attack a particular disease you have to know what makes it tick. These profiles have given us information on what genes are expressed in this triple-negative type of breast cancer. New trials are now being designed to target these genes using either specific types of chemotherapy or new biological treatments.

Miller What have you seen in terms of treatment strategies for women with breast cancer over the past five years? Is it headed towards more focused therapy?

Harris Absolutely, we are focusing in on biological subtypes and treating patients based on the type of breast cancer they have. That increases the likelihood that we will be able to cure the patient.

Miller Some other clinical trials being done at Yale deal with an Emtor inhibitor and a drug called rapamycin. Another is combining rapamycin with other medicines; can you talk about these?

Harris We have a number of clinical trails that are focusing in on particular pathways we know to be very active in breast cancer. The Emtor inhibitors block a fundamental pathway, which is particularly active in these HER-2 positive breast cancers, and also in triple-negative breast cancers.

Miller If you have questions you can e-mail us at healthline@yale.edu. I would also encourage you to go to our website, www.yalecancercenter.org. Lyndsay, if someone in our listening audience, or one of their family members or friends, wants to participate in a clinical trial, who would they call?

Harris They are welcome to call us anytime. The best way to reach us is through the Yale Cancer Center website at www.yalecancercenter.org; all of the contact numbers are available there.

Miller Are there any key points that you want to share with the audience before we sign off?

Harris I think that we are in the era of hope. There is no question that we are improving breast cancer survival; every little increment of benefit is being seen as patients live longer and have a better quality of life after the diagnosis of breast cancer.

Miller Which is a wonderful way to end this program and recognize Breast Cancer Awareness Month. I would like to thank Dr. Lyndsay Harris for joining us on Healthline. Remember, tune into WTIC NewsTalk1080 every Sunday morning at 8:30 a.m. for Healthline with the Yale Cancer Center. Our next program will feature Dr. Francine Foss discussing the latest advances in the treatment of

leukemia. Until then, this is Dr. Ken Miller from the Yale Cancer Center wishing you a safe and healthy week.