OLSON CENTER FOR WOMEN'S HEALTH

# overview

Women's Health Overview

## What Does My Mammogram Report Mean?

As a gynecologist and breast health physician, I am often asked by women questions about when to get mammograms and the interpretation of their mammogram reports. With greater transparency of patient results, women will now receive their "letter" stating the mammogram is normal but can also directly review the mammogram report created by the radiologist for their physician. With this in mind, I wanted to provide this information as a resource for women as they consider screening and look at their mammogram reports.

**What is a mammogram?** Simply put, a mammogram is an X-ray of the breast. 3-D mammograms take multiple pictures while scanning the breast tissue to provide more information for the radiologist to evaluate. This test can allow for the detection of breast cancers before they can be felt on exam.

**When should I get a mammogram?** Are there new guidelines?

The U.S. Preventative Service Task Force, an independent group of experts authorized by the U.S. Congress to provide guidance on health care screening and disease prevention, updated their guidelines in May 2023 to recommend mammographic screening every other year for women aged 40 to 74, with individualized decision making for women 75 or older. They had previously recommended waiting until age 50 for screening mammograms but changed their recommendation due to an increasing number of breast cancer cases in younger women.

Many medical organizations, including the American College of Obstetricians and Gynecologists, have continued to recommend yearly screening starting at age 40.

see **Mammogram Report** pg. 4

## Common Questions About **Breast Density**

Breast density refers to the appearance of the breasts on a mammogram. Glandular tissue (the milk glands) appears more whitish in color on the mammogram (dense tissue), whereas fatty tissue is darker gray. Because cancer is also more likely to be white on the mammogram, it can be more challenging to distinguish it from the glandular white normal breast tissue. As a result, mammograms may not detect cancer as easily in a person with very dense breast tissue compared to a person with fatty or low-density breast tissue.

Higher density on mammograms is more common in younger women, and overall, breast density tends to decrease as we age.

With 3-D mammography, even women with denser breasts can be screened very effectively with few false negatives. This is the technology we use at Nebraska Medicine.


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Women's Health Overview

newsletter is published quarterly for health care professionals and the general public with special interest in women's health issues by the Olson Center for Women's Health.



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# From the Chairman

I need to start this letter with a disclaimer. The opinions contained herein are my own and do not represent the opinions of the University of Nebraska Medical Center or Nebraska Medicine.

Many people have declared that the health care system is badly broken and in need of a makeover. Numerous suggestions have been made yet things appear static. Permit me to add to the list. When I began my medical education, paper charts (some with very little written on them) were available to the provider. Frequently the only entities in the exam room were the patient and the provider. Decisions about treatment and the cost thereof were made at the bedside. As time progressed more people were added. Insurance companies entered the exam room, sometimes in partnership with the federal government. Preauthorization for medication and procedures became the rule. These payers always claimed that they were not telling us how to practice medicine but when they deny coverage it certainly feels that way to our patients.

Another major intrusion into the exam room was the computer. Ostensibly this was supposed to help patient and provider. In many instances these COWS (Computer on Wheels) were aptly named. These large bovine-like devices tended to come between patient and provider.

The most intrusive addition is the entry of the Supreme Court and State Legislatures into the exam room. Independent of your opinion about reproductive rights the Dobbs decision undeniably inserts government into the patient provider relationship.

The latest addition is Artificial Intelligence. While already in use in diagnostic imaging, mammograms for example, its usefulness in the day-to-day interactions between patients and their health care provider has yet to be demonstrated. It will likely not make relationships better, which many of us believe is critical.

The inescapable conclusion to me is that the solution to the health care crisis is: "Make bigger exam rooms". If we continue at the current pace the only person who does not really want to be in the room is the patient.


Carl V. Smith, MD, FACOG
Chairman
Department of Obstetrics and Gynecology
College of Medicine
University of Nebraska Medical Center

# research news

## **Deciphering Molecular Underpinnings** of Metastasis in Breast Cancer

In 2023, it is estimated that 297,790 American women and 2,800 American men will receive a diagnosis of invasive breast cancer (BC); and 43,170 women and 530 men will die of breast cancer (American Cancer Society's Cancer Facts for 2023). Diagnosis at earlier stages and better management of local/regional disease have led to a significant decrease in mortality, with 3.8 million survivors currently living with breast cancer. While most survivors will have a long remission and even a normal cancer-free life, unfortunately, tumors will recur in 20% to 30% of patients with an incurable metastatic disease (Stage III or IV, where cancer has spread to surrounding tissues or distant parts of the body). Unfortunately 6% to 10% of new patients present with Stage IV disease. Metastatic disease is the primary cause of death from breast (and indeed all) cancers, accounting for about 90% of all deaths. Reducing the burden of death from metastatic BC is an urgent and unmet need.

Breast cancer has multiple subtypes. Therapies for patients with the most common subtype, hormone receptor-positive (HR+), and the second most common subtype, HER2-positive (HER2+), have improved in recent decades. The so-called triple-negative breast cancer (TNBC) subtype refers to patients whose tumors lack the hormone receptors (estrogen receptor and progesterone receptor) as well as the HER2 receptor. Early recurrent metastatic breast cancer is more frequent among TNBC patients. Notably, while the TNBC subtype is less common, no "targeted" therapies exist for such patients. Thus, metastatic TNBC is an even greater challenge. TNBC and deaths from this type of breast cancer are higher among younger women and African American patients. Therefore, identifying new molecular pathways that play a definitive role in breast cancer metastasis, especially in TNBC, can open new avenues to combat the lethality of metastatic breast cancer.

A focus of studies in the laboratories of Hamid Band, MD, PhD, and Vimla Band, PhD, together with their collaborators is to examine the molecular machinery that enables certain receptors to reach the sites in a tumor cell where they signal metastasis-promoting activities. Their recent studies identified one such molecular player with an acronym of EHD2 (EPS15-homology domain protein 2). Their comprehensive studies, recently published in the scientific journal "eLife" (*), revealed that EHD2 protein is overexpressed in approximately 40% of overall BC cases and over half of TNBC patients (as well as HER2+ patients). Importantly, EHD2 overexpression specified shorter patient survival and metastasis-prone disease. Laboratory studies in TNBC tumor cell models utilizing genetic techniques that eliminate the EHD2 protein from the cell or where it can be supplied from outside (using the so-called shRNA knockdown and CRISPR/Cas9 knockout approaches) demonstrated that EHD2 expression in tumor cells was required for tumor growth and metastasis.

To understand how EHD2 was playing such a vital role in propelling TNBC tumor cells, researchers focused on a role of EHD2 has previously shown in basic cell biological studies in which the EHD2 protein helps maintain key cellular structures called caveolae that are present on the surface of tumor cells. Using an advanced microscopy approach (total internal reflection fluorescence or TIRF microscopy), they established that EHD2 was indeed required to maintain the caveolae sub-structures at the plasma membrane of TNBC tumor cells. These findings suggested that EHD2 was aiding tumor cells in expressing higher levels of certain metastasis-promoting molecules within caveolae. Based on previously identified characteristics of EHD2 and molecules known to reside in caveolae, they tested the potential role of EHD2 in promoting the expression of a calcium channel protein (Orai1) known to be associated with a specific type of signaling in cells. This signaling mechanism, called store-operated calcium entry or SOCE, plays a pro-metastatic role in cancers. Indeed, their genetic, cell biological and biochemical studies in combination established that EHD2 was critical in maintaining the Orai1 protein at the surface of TNBC tumor cells.

With the newly-gained knowledge, they carried out proof-of-concept studies to test if the inhibition of the SOCE pathway can be used to reduce the tumorigenic and metastatic abilities of excess EHD2 levels. Using small molecules that inhibit the SOCE pathway, they establish that EHD2-overexpressing tumorigenic and metastatic properties of TNBC cells can in fact, be halted in laboratory settings by SOCE inhibitors.

These basic laboratory research findings have opened the exciting prospect of targeting TNBC tumors with SOCE inhibitor drugs. Several candidate drugs are currently in development, and some are in clinical trials for other diseases. The Band research group is actively working to test the potential of such candidate drugs in TNBC settings.

** References are available upon request.*

Contributed by **Hamid Band, MD, PhD**
*Eppley Institute for Research in Cancer* and *Fred & Pamela Buffett Cancer Center*
**Vimla Band, PhD**
*Fred & Pamela Buffett Cancer Center*

## What Does My **Mammogram Report** Mean? continued from pg. 1

**What is in a mammogram report?** The mammogram report includes two main components. The first is the assessment of breast density, and the second is the result itself.

In terms of results, the most common result on a screening mammogram is "Normal" or "Benign." These are both reassuring results, requiring no additional testing or follow up. Other mammogram results may require follow-up tests. These are generally reported as "Incomplete," and the woman would be notified to come back in for an ultrasound or an additional mammogram. This process is frequently referred to as a "call back." If you see "Incomplete" on your report, contact your provider's office or radiology to set up the follow-up imaging needed. After that follow-up imaging is performed, the woman is informed by the radiologist if additional follow up or biopsy is required.

**Do I need an ultrasound or MRI if I am in a higher-density category (extreme or mixed density)?** No. Women are not currently recommended to have additional screening tests based on their density alone. Researchers are still investigating if or when additional screening tests may be helpful.

The decision to do an ultrasound is usually based on having a breast problem (like a lump). It helps the radiologist specifically assess that problem. MRIs of the breasts are recommended for women at high risk for breast cancer based on their family history or genetic testing.

With 3-D mammography, even women with denser breasts can be screened very effectively with few false negatives. This is the technology we use at Nebraska Medicine locations.

If you have questions about what breast screening is right for you, speak with your provider about your options. We also offer breast risk assessment and genetic counseling through the Olson Center for Women's Health.

**Does it increase my risk for breast cancer if I have dense breasts?** Perhaps. Some research studies have shown that women with higher breast density after menopause may be at higher risk of cancer. This means to me that it is very important for women in this category to maintain their annual mammogram screening routine! It is also important to note that menopausal hormone therapy can be associated with higher breast density in menopause, so that is one area that can be modified for women who have this concern.

**What is breast self-awareness?** Women are encouraged to be aware of any changes in their breasts, such as lumps or skin changes, and report them to their provider. While most breast changes will still be benign and are not cancer related, it may be necessary to do additional testing or imaging of the breasts when changes occur. It is also important to remember that cancers can start between your mammograms, so it is necessary to get something new, like a lump, checked out when you notice it — even if it has only been a few weeks or months since your last mammogram.

In our January 2024 edition of ***Women's Health Overview***, Brittany Bowman, genetic counselor with UNMC Munroe Meyer Institute, Department of Genetic Medicine, will discuss the vital role a genetic counselor has when evaluating and interpreting family history, genetic test results and other relevant information to assess the risk of hereditary conditions such as breast and ovarian cancer.

Contributed by **Jennifer Griffin Miller, MD, MPH**
*UNMC Department of OB-GYN*

**OLSON CENTER FOR WOMEN'S HEALTH**

*Mission Statement*
The mission of the Olson Center for Women's Health is to provide a national comprehensive health science center at the University of Nebraska Medical Center (UNMC). Based in the Department of Obstetrics and Gynecology, the center enables UNMC to make distinctive strides in education, research and service through innovative approaches to women's health issues.

*Want More Information?*
Visit our website: **OlsonCenter.com**

Learn more about our health care providers, services and programs available at the Olson Center for Women's Health. Our website also offers women's health information. Here are a few topics:
- Breastfeeding
- Breast health and disease
- Cardiovascular health
- Gastrointestinal health
- Gynecologic health
- Incontinence
- Reproductive endocrinology/infertility
- Pregnancy
- Wellness

26th Annual

Omaha Women's Health & Wellness Conference

**Friday, Oct. 6, 2023**
8:00 a.m. to 4:30 p.m.

*Radiant Vitality: Celebrating Wellness Through Life's Different Stages*

A day of education, exhibits, and screenings for the community. Continuing education will be provided for nurses and social workers.

**In-person live attendance prices**
General registration - $75
Nurses and social workers - $110
*Continuing education will be provided with paid registration.*

La Vista Conference Center
12520 Westport Parkway
La Vista, NE

**To Register**
Visit OmahaWomensHealthAndWellness.com
or call 402.559.6618 if you cannot register online.
Registration deadline: **Tuesday, Sept. 26, 2023**

**Questions?**
Call the Olson Center for Women's Health at 402.559.6345

*Brought to you by: Olson Center for Women's Health*

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## 2023 Conference Presentations

### Main Sessions:

**Motivate! Changing the Psychology of the Diet Mentality into a Motivated Mindset**
Niki Kubiak, RD, LMNT - Niki Kubiak Sports Nutrition and Weight Loss

**Understanding Dietary Supplements**
Allison Dering-Anderson, BA, PharmD, RP, FAAIM, FAPhA – University of Nebraska College of Pharmacy

### Breakout Sessions:

**Postpartum People: the Forgotten Patients**
Kathleen Scott, DNP, CNM – UNMC Dept of Ob/Gyn

**Caregiving: Where Does it End?**
Jeanie Stuto, LICSW, CGCS - Jean Stuto Therapy

**Top 3 Supplements**

Allison Dering-Anderson, BA, PharmD, RP, FAAIM, FAPhA – University of Nebraska College of Pharmacy

**Pulled by the Now – Understanding ADHD in Children and Adolescents**
Jasmine Gray, PhD, LP, BCBA – Children's Mercy Hospital of Kansas City
Christina Pynn, PhD, LP – Children's Mercy Hospital of Kansas City

**Contributing Factors and Management of Back Pain**
Amy Collison, PT, DPT – Nebraska Medicine Outpatient Rehab Services

**Healthy Eating in our Busy Lives: Tips and Real-time Demonstrations of Easy Recipes for Healthier Meals**
Rebecca Beaudoin, RDN, LMNT – Nebraska Medicine Clinical Nutrition

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# The Olson Center for Women's Health Welcomes **Rebecca Rimsza, MD**

Rebecca Rimsza, MD is an OB-GYN and fellowship-trained in Maternal Fetal Medicine. Dr. Rimsza received her medical degree from Creighton University followed by a residency in Obstetrics and Gynecology at Saint Louis University. She comes to the Olson Center after completing her fellowship at Washington University. Her research interests include: clinical obstetrics, obstetric anesthesia, labor management and labor education.

Dr. Rimsza is relocating to Omaha with her husband, Aaron, two children, Emilia and Hunter, and their family dog, Salvador. She enjoys traveling (Ireland and Greece most recently) and likes to visit parks, farmers markets and local pools with her family. She also enjoys going on walks and listening to audiobooks.

When asked why she went into maternal-fetal medicine, she said, "I like helping women through complex pregnancies and working through a challenging and unexpected diagnosis."

Welcome to the Olson Center, Dr. Rimsza! We are excited to have you on our MFM team!

## *in this issue*



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