For more information, please visit:
https://www.uvmhealth.org/medcenter/Pages/Conditions-and-Treatments/Mammograms.aspx

Screening for Breast Cancer
Answers to common questions
The heart and science of medicine.

DOES SCREENING WORK?
Studies show that since screening started, deaths due to breast cancer reduced by 38%. Screening allows breast cancer to be detected earlier, leading to better treatment and outcomes. If found, breast cancer is treatable. With the latest medicine and research, even advanced stage breast cancer can be treated.

WHAT IF I HAVE NO RISK FACTORS?
75% of patients diagnosed with breast cancer have no family history. Screening only those with family history would deny 75% of women the opportunity for early diagnosis. The purpose of screening is to administer treatment as early as possible, where it’s most effective and less costly.

WHAT ABOUT RADIATION?
The radiation dose of each mammogram is about 0.3mSv. This is equivalent to the amount a woman would get from background radiation over about seven weeks, from TV, cell phones, sun etc, and is approximately 6% of the amount of radiation a chest CT produces. Studies show that a woman would need to receive tens of thousands of annual screenings to develop one case of fatal breast cancer from radiation due to traditional mammograms (76,000 for women aged 40-49, 578,000 for women aged 70-79).

WHAT ABOUT FALSE POSITIVES?
A false positive is when the imaging results require further testing or a biopsy, which ultimately results in a negative result (i.e. no cancer). For some, this anxiety may be significant but it’s worth remembering that false positives occur infrequently. For women age 40-49, a false positive occurs about 1 out of every 10 times, and reduces to 1 out of every 15 times in those age 70-79. It can be an anxious time waiting to hear back, but the anxiety when no screening is done and more advanced stage cancer is diagnosed can be worse.

DOES BREAST DENSITY MATTER?
Women’s breasts have different densities. They can be broadly categorized into four categories (see top left). About 50% of women have breasts considered dense, Your breast density can found in your mammogram report. Having dense breasts increases the risk of getting breast cancer and also makes cancer harder to find on a mammogram (imagine finding a single white dot in the first image vs the fourth). Women who have denser breasts should discuss screening with their doctors and select a suitable schedule/method. There are methods besides the standard mammogram which have been shown to be better at detecting cancer with fewer false positives for women with dense breasts. For example, mammograms detect 2-7 cancers per 1000 women screened. Additional techniques can increase that number for women with dense breasts.

Digital Breast Tomosynthesis (DBT)—3D mammography increases cancers detected by 1-2 per 1000 women screened, and has also been shown to decrease false positives.

Ultrasound—Increases cancers detected by 2-4 per 1000 women screened but increases false positives.

MRI—Increases cancers detected by more than 10 per 1000 women screened. Increases false positives but less so than ultrasound.

WHEN SHOULD I START, AGE 40 OR 50?
Women in their 40s are at lower risk compared with women in their 50s but there is no abrupt jump at 50. One in six breast cancers occurs in women age 40-49. Years of life lost to breast cancer are highest for women in their 40s.

WHAT ARE THE CONS?
Screening does take time out of your busy schedule. Being called back for further testing can be intimidating. There are financial costs to the screenings, though annual screening should be covered by insurance policies. These will need to be balanced by early detection which allows improved outcomes and lower costs (both money and time) of treating disease that is caught earlier.

THE CHOICE IS YOURS
The decisions around breast cancer screening are personal, and yours. Please ask your doctor if you have any questions or email mammoinfo@uvmhealth.org.

www.cdc.gov/nchs