

# Breast density: it matters

Breast cancer remains the most common cancer among European women with an estimated 494,000 new cases a year. What can be done to improve its detection, particularly in those with high breast density? Adjunctive imaging should be considered. Dr Athina Vourtsis and Dr Wendie Berg from **DenseBreast-info.org** discuss this testing and how it could improve outcomes.

In 2016, 'Position Paper on Screening for Breast Cancer' by EUSOBI (European Society of Breast Imaging) attributed a 40% reduction in breast cancer mortality to population-based screening. Mammography has been proved to save lives by finding cancers when they are still in the early stages with negative lymph nodes – but can screening outcomes be further improved? Can the detection of cancers obscured by dense breast tissue be improved with the aid of supplemental screening tools?

Breast density is determined through a woman's mammogram and is described as one of four categories depending on the amount of breast tissue in comparison to fat: A, mostly fatty; B, scattered fibroglandular density; C, heterogeneously dense, which could obscure detection of small masses; and D, extremely dense, which lowers the sensitivity of mammography. Categories C and D are considered 'dense'.

**“ Risk stratification should be applied to guide women towards personalised breast screening. ”**

– **Dr Athina Vourtsis**

It is estimated that approximately 40% of European women of mammographic age have dense breasts. Over 70% of cancers occur in dense breasts and limitations of mammography in these women are well documented. In addition to its masking effects, recent research indicates that breast density is the most prevalent common risk factor for developing breast cancer, and women with extremely dense breasts have the highest risk of developing the disease.

It is widely accepted that a 'normal' mammogram does not reliably exclude the possibility of malignancy in dense breasts. Therefore, it is incumbent on radiologists specialising in breast imaging to work closely with referring physicians and ministries of health in order to improve strategies and consider supplemental screening approaches for women with dense breasts.

## Adjunctive imaging

Many large-scale studies demonstrate strong evidence to support adjunctive imaging for dense breasts. Trials involving more than 200,000 women with dense breasts using supplemental screening ultrasound have demonstrated additional detection of three to four cancers per 1,000 women screened. Importantly, more than 85% of

cancers found with screening ultrasound were node-negative, small, invasive cancers. Women at very high risk for breast cancer should have screening MRI.

“With an abundance of available facts on breast density risk and advances in breast imaging technologies, risk stratification should be applied to guide women towards personalised breast screening according to their risk of developing breast cancer,” says Dr Athina Vourtsis, director and radiologist at Diagnostic Mammography in Greece. “If a woman has a higher risk for developing breast cancer, she has the right to be thoroughly informed.”

## Sharing knowledge

To address this growing concern, Dr Vourtsis joined with US-based medical-education resource DenseBreast-info.org as the organisation's European liaison. Website content for the European expansion effort will be generated by a European coalition of breast imagers who will develop and share educational resources with healthcare professionals.

“The website is rich in medically sourced information,” says Dr Wendie Berg, chief scientific adviser at DenseBreast-info.org. “The European coalition website content will be developed by its own board representing Europe and nearby nations. We are thrilled to expand this website to the European clinical community and help educate on this very important issue.”

Vourtsis adds, “Our vision is to detect cancers as early as possible. This will lead to less invasive treatments, lower treatment costs and the likelihood of improved outcomes. The goal of the new European coalition is to educate healthcare professionals, expand discussions of screening strategies and improve the standard of care for women with dense breasts.”

With better education and more informed dialogue, clinicians can begin to improve advice on the best approach to breast care for women based on personal risk factors with the ultimate goal of early detection and improved outcomes.

Clinicians can learn about breast density and imaging approaches for dense breast patients by completing an online accredited course authored by DenseBreast-info.org, the details of which can be found below. ■

**References available upon request.**

## Further information

DenseBreast-info.org  
www.DenseBreast-info.org  
[http://courses.icpme.us/class\\_learn?course=543](http://courses.icpme.us/class_learn?course=543)

