Tomosynthesis – the new 3D mammography

Breast tomosynthesis represents the most significant advancement of digital mammography in breast imaging. It is a new, clearer type of mammography that detects neoplasms which are not visible with two-dimensional digital mammography.

As a result, the need for additional tests to obtain a clearer picture of a possible lesion is significantly reduced, since it detects 41% more aggressive cancers at an early stage.

Where does the innovation of tomosynthesis lie?

The innovation of tomosynthesis lies in the three-dimensional imaging of the breast, since the breast itself is a three-dimensional organ.

Unlike digital mammography, which takes two images of the breast, tomosynthesis captures the breast from multiple different angles, achieving analysis in 1-millimeter slices!

What is the advantage of three-dimensional (3D) breast imaging?

Dense breasts appear "white" in digital mammography — and so do lesions. Therefore, a significant percentage of small, suspicious lesions may not be detected in dense breasts.

Tomosynthesis covers this gap through detailed three-dimensional imaging of the breast, as it recognizes very small lesions and defines their size, shape, and location.

How is tomosynthesis performed?

The technique is the same as digital mammography and is automatically completed within a few minutes through specialized software. It is FDA-approved and, by avoiding additional supplementary images, contributes to reducing the overall radiation exposure.

In which cases is tomosynthesis indicated?

- As part of preventive imaging, especially in dense breasts

- For the investigation of a palpable finding

- For the investigation of a finding from digital mammography

Why should a woman choose tomosynthesis over digital mammography?

- Because it detects more breast neoplasms compared to digital mammography. Digital mammography in dense breasts may "miss" up to 21% of neoplasms.

- Because it detects lesions in dense breasts, where the diagnostic value of digital mammography is limited. By analyzing the image in 1-millimeter slices, tomosynthesis allows the radiologist to study areas of increased density more accurately, providing better resolution.

- Because it reduces the need for additional images and possible repeat or further examinations, thus lowering the patient's anxiety.