

Factsheet 3D-Tomosynthesis

What is a Tomosynthesis?

- from the Greek "tome" for cut and "synthesis" for composition
- similar to the picture reconstruction of computer tomography, 25 images of the breast taken from different angles are used to construct **three-dimensional** images
 - takes several images from different angles, as the X-ray tube swivels
 - subsequent reconstruction from all images reveals depths

Advantages

- involves a huge advantage: tumors hiding behind healthy structures that have been undetected during the digital mammography can now be made visible
- great importance for clinical diagnostics: the doctor is able to assess the edges of a tumor or the spatial distribution of the microcalcifications more easily
 - microcalcifications are a by-product of the developing tumor
 - the distribution of microcalcifications is an indicator for malignance or benignancy

Any higher risks?

- the patient is not exposed to a higher radiation, because the same dose which is applied in conventional mammography is divided on all 25 exposures