

## **The ACR and Society of Breast Imaging Statement on Radiation Received to the Thyroid from Mammography**

April 4, 2011

Some Americans have expressed concern, due to an [erroneous media report](#), that the small amount of radiation a patient receives from a mammogram may significantly increase the likelihood of developing thyroid cancer. This concern simply is *not* supported in scientific literature.

The radiation dose to the thyroid from a mammogram is extremely low. The thyroid is not exposed to the direct X-ray beam used to image the breast and receives only a tiny amount of scattered X-rays (less than 0.005 milligray). This is equivalent to only 30 minutes of natural background radiation received by all Americans from natural sources.

For annual screening mammography from ages 40-80, the cancer risk from this tiny amount of radiation scattered to the thyroid is incredibly small (less than 1 in 17.1 million women screened). This minute risk should be balanced with the fact that thyroid shield usage could interfere with optimal positioning and could result in artifacts - shadows that might appear on the mammography image. Both of these factors could reduce the quality of the image and interfere with diagnosis. Therefore, use of a thyroid shield during mammography is *not* recommended.

Patients are urged not to put off or forego necessary breast imaging care based on this erroneous media report.

For more information on this issue, please see [Summary of Thyroid Cancer Risks Due to Mammography](#) by R. Edward Hendrick, PhD, FACR.

For more information on why you should start annual mammograms at 40 years of age, please visit [www.MammographySavesLives.org](http://www.MammographySavesLives.org).